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ABSTRACT

A project was undertaken at Cerritos College (CC) to establish a statewide model for the development of articulated trade and industry curriculum materials and methods that would allow students to move from the secondary to the college level without loss of time or resources. Six subject areas were chosen: auto body, automotive, drafting, electronics, machine tool, and plastics. The project involved: (1) a statewide poll of 107 California community colleges, 15% of which had articulation agreements in at least one trade and industrial area; (2) the participation of four school districts, the Cerritos Community College District, and four universities; (3) the development of steering and advisory committees and the involvement of 72 full-time instructors in the 6 subject areas; (4) a series of meetings to compare courses and materials and to develop articulated curricula; (5) the creation of an articulation package listing programs and instructors; (6) the establishment of an articulation policy at CC, articulation agreements with other institutions, and a certification process for students completing articulated courses; (7) two statewide workshops to demonstrate the project; and (8) the development of computerized listings of articulated courses in the six subject areas. The project resulted in articulation agreements in all six subject areas. Appendices include survey results, committee meeting minutes, and enrollment projections. (HB)

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JC 820 328

TRADE AND INDUSTRY ARTICULATION PROJECT

FINAL REPORT

CERRITOS COLLEGE

1981 - 1982

VEA SUBPART 3--ID NO. CC-3-2-354

BETSY STEWART
PROJECT COORDINATOR
VEA PROJECT ASSISTANT
CERRITOS COLLEGE

RICHARD E. WHITEMAN
PROJECT DIRECTOR
DEAN OF VOCATIONAL EDUCATION
CERRITOS COLLEGE

KEITH K. ADAMS
ASSISTANT DEAN OF VOCATIONAL EDUCATION
CERRITOS COLLEGE

JUNE 30, 1982

CERRITOS COMMUNITY COLLEGE, NORWALK, CALIFORNIA

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TRADE AND INDUSTRY ARTICULATION PROJECT

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TRADE AND INDUSTRY ARTICULATION PROJECT

ABSTRACT

The purpose of the Trade and Industry Articulation Project was to develop a systematic process which provided articulation methods and standards to allow students to move from the secondary level to Cerritos Community College without loss of time or resources. The plan was designed to also serve as an articulation model for other community colleges in the State of California.

- Six vocational areas were articulated: auto body, automotive, drafting/architecture, electronics, machine tool, and plastics.
- The project utilized a steering committee, advisory committee, and administrators and instructors from thirteen area high schools, two regional occupation programs, four adult schools, and Cerritos College.
- Before embarking on the project, all 107 California Community Colleges were contacted to ascertain which had developed prior articulation in any of the six subject areas.
- Nationwide research was also conducted.
- Private computerized information systems were also reviewed for possible utilization.
- Workshops were held with instructors from each unified school district to compare course outlines, textbooks, methods of instruction, etc.
- Workshops resulted in articulated curricula developed and computerization of the articulated courses.
- Computerized printouts in each of the six vocational subject areas displayed all the courses taught in the relevant subject areas, semester units, site of the courses, and which courses articulated with Cerritos Community College courses.
- Computerized printouts also displayed which Cerritos College courses articulated with neighboring four-year colleges and universities.
- The articulation project resulted in articulation agreements with each of the participating deliverers.
- A set of criteria was established for students to be eligible for college credit in the articulated areas.
- A five-part form entitled "Letter of Articulation Certification" was produced and made available to secondary-level instructors to give to students completing articulated courses at the end of spring, 1982.
- Two statewide workshops were held to demonstrate the articulation project.

THE

PREVIEW . . .

TRADE AND INDUSTRY ARTICULATION PROJECT

THE PREVIEW

In September, 1981, Cerritos College received a grant under VEA Subpart 3 funding to develop a statewide articulation model in the trade and industry area. Six subject areas were chosen for articulation: auto body, automotive, drafting, electronics, machine tool, and plastics.

The following report is a topical outline in chronological order of the project events leading to its culmination resulting in the following:

- articulated curricula agreed upon
- articulation agreements reached
- form for student certification developed
- computerized printout of articulated classes produced

In an attempt to identify previous efforts toward articulated curricula in the six trade and industry areas, Cerritos College conducted a statewide survey in October of all 106 California Community Colleges. (See "The Poll" on Page 11 as well as Appendix A on Page 89).

In addition, the Project Coordinator utilized LANCERS (Los Angeles Center for Educational Resource Services) and ERIC (Educational Resources Information Center) to conduct nationwide research on articulation in the six subject areas. Sixty-nine(69) previous articulation documents were reviewed. Of particular value in this project were articulation projects from North Carolina (Duplin County), South Carolina (Greenville Technical College), Maryland (Catonsville Community College), and Nebraska (Southeast Community College, Lincoln). Using these plus examples in the State of California, project staff put together the very best aspects of all plus some innovative efforts of our own to come up with this Trade and Industry Articulation model.

In the same manner, already-existing computerized career information systems were reviewed (such as COIN, GIS, and Eureka) for possible incorporation into the project. It was determined that it was not feasible at this point to combine a local articulation model with a larger information base. At a future date, however, it is anticipated more information may be added to the computer and the computer systems analyst left open fields in the program for DOT codes and descriptions.(See "The Printout" on Page 51 for example.)

To implement the project, a Steering Committee met in December, 1981, followed by a large Advisory Committee of 34 members which met in January, 1982. (See "The Planners" on Pages 15-22.) Among others, the Advisory Committee included industry representatives/owners/managers from all six subject areas and advanced Cerritos College students, including one female drafting major. The Advisory Committee also included representatives from the Cerritos College Women's Center, Handicapped Student Center, Office of Extended Opportunity Programs and Services (EOPS), and Counseling. (Also see minutes in Appendix B and C.)

In cooperation with the above, all articulation materials and reports were developed with gender equity in mind and designed to improve programs and services for the disadvantaged, handicapped, limited English-speaking, re-entry, and non traditional student.

The key to the success of the project was in the local workshops held with Cerritos College instructors and unified school district instructors. Course outlines were compared and articulated curricula agreed upon. A total of 249 courses were reviewed ranging from 19 courses in auto body to 67 courses in drafting. Of these, many high school/ROP/adult school courses articulated to a total of 13 Cerritos College courses. (See "The Printouts" on Pages 49-86.) Articulation agreements were reached in all six subject areas. (See "The Plan" on Page 35 for sample articulation agreement.)

The local workshops provided both high school/ROP/adult school instructors and Cerritos College instructors with a first-hand knowledge of each others programs. As a result of the workshops, many "tours" were arranged and much dialogue and interest followed. One "side" effect of the workshops was a renewed cooperation, understanding, and respect among instructors.

Six criteria were set forth in order for a student to be eligible for credit by articulation. (See "The Policy" on Page 31.). The policy for credit by articulation was designed to fit in with the college's existing policy for credit by examination.

With the review of all the instructors involved and the advice of the Cerritos College Technology counselors, a five-part form was developed entitled, "Letter of Articulation Certification." (See "The Proof" on Page 37). The form certifies the student has met the criteria set forth to be eligible for credit by articulation and provides methods and standards whereby the student may enroll in the college in the next course in the curriculum sequence and receive college credit. (See "The Procedure" on Page 39)

By June, 1982, all instructors had been sent copies of the form letter along with instruction sheets to be given to their completing students. A prior survey of the instructors in March had provided a "guesstimate" as to how many students would complete the articulated class by the end of spring semester, 1982, with an A or B and would come to Cerritos College within the specified time period (two years). Instructors predicted 376 of their students would be eligible for credit by articulation. (See "The Prediction" on Page 41 and Appendix D.)

The project concluded June 30, 1982, with this report being disseminated to all California Community College deans of occupational education, deans of student services, ERIC, the Chancellor's Office, and those who requested it at the statewide workshops. Other copies are available upon request.

THE

PREMISE . . .

ARTICULATION

ARTICULATION IS GENERALLY CONSIDERED AS A SYSTEMATIC PROCESS THAT WILL PERMIT STUDENTS TO MOVE FROM ONE COURSE, PROGRAM, OR EDUCATIONAL LEVEL TO THE NEXT WITHOUT LOSS OF TIME OR RESOURCES. A GUIDING PRINCIPLE OF ARTICULATION IS THAT NO STUDENT SHOULD BE REQUIRED TO REPEAT THE SAME COURSE CONTENT FOR WHICH CREDIT WAS RECEIVED.

THE

PLUSES . . .

10

PLUSES OF ARTICULATION

TRADE AND INDUSTRY ARTICULATION PROJECT

POSITIVE OUTCOMES FOR STUDENTS

ARTICULATION . . .

- MINIMIZES NEEDLESS DUPLICATION, THUS REDUCING COSTS
- ALLOWS STUDENTS TO RECEIVE COLLEGE CREDIT BY ADVANCED PLACEMENT THROUGH HARD WORK AND ACHIEVEMENT AT THE HIGH SCHOOL, ROP, OR ADULT SCHOOL LEVEL
- PROVIDES AN INCENTIVE FOR STUDENTS TO CONTINUE TECHNICAL/VOCATIONAL EDUCATION
- ENCOURAGES ENROLLMENT IN BOTH HIGH SCHOOL AND COLLEGE VOCATIONAL CURRICULA
- EASES STUDENT TRANSITION FROM HIGH SCHOOL TO COLLEGE

POSITIVE OUTCOMES FOR INSTRUCTORS

ARTICULATION . . .

- PROVIDES HIGH SCHOOL INSTRUCTORS WITH A FIRST-HAND KNOWLEDGE OF THE COMMUNITY COLLEGE PROGRAM
- PROVIDES THE COLLEGE STAFF WITH A FIRST-HAND KNOWLEDGE OF THE HIGH SCHOOL/ROP/ADULT SCHOOL PROGRAMS
- ESTABLISHES AN INTEGRATED PROGRAM TO ENCOURAGE CONTINUED VOCATIONAL EDUCATION
- PROVIDES RENEWED COOPERATION, UNDERSTANDING, AND RESPECT AMONG INSTRUCTORS

THE

PURPOSE . . .

TRADE AND INDUSTRY ARTICULATION PROJECT

PURPOSE

THE PURPOSE OF THE TRADE AND INDUSTRY ARTICULATION PROJECT IS TO ESTABLISH A STATEWIDE MODEL FOR THE DEVELOPMENT OF ARTICULATED TRADE AND INDUSTRY CURRICULUM MATERIALS AND METHODOLOGY.

OBJECTIVES

1. ESTABLISH PREVIOUS EFFORTS TOWARD ARTICULATED CURRICULA

   A. Establish An Advisory Committee
   B. Contact all State Agencies
   C. Review Private Computerized Information Systems
   D. Compare Strengths and Weaknesses of Existing Programs

2. COLLECT, DEVELOP, AND DISSEMINATE MATERIALS

   A. Arrange Local Workshops with Instructors
   B. Update and Computerize CHAR
   C. Describe Most Efficient Existing Articulation Methods
   D. Disseminate Descriptions
   E. Promote Gender Equity and Improve Programs for Special Populations

3. PROMOTE SEX FAIRNESS

   A. Review Materials with Relevant Personnel
   B. Discuss Gender Equity at all Workshops

4. CONDUCT TWO REGIONAL WORKSHOPS

   A. Demonstrate Articulation Methods
   B. Promote Gender Equity and Relate to Special Populations

5. DEVELOP A PLAN FOR CHANGE IN UPWARD MOBILITY FOR STUDENTS

   A. Gather Input from Local Instructors
   B. Compare Articulation Methods with Industry Needs
   C. Coordinate Meetings of Project Advisory Committee
   D. Ensure that Special Populations Have Equal Access

THE

POLL . . .

RESULTS OF THE STATEWIDE POLL

+ ALL 107 CALIFORNIA COMMUNITY COLLEGES WERE SENT A LETTER AND SURVEY FORM.

+ EIGHTY-TWO (82) COMMUNITY COLLEGES RESPONDED TO THE SURVEY (77% RESPONSE RATE).

+ TWELVE (12) COMMUNITY COLLEGES OR 15% OF THOSE RESPONDING SAID THEY HAD ARTICULATION IN AT LEAST ONE TRADE AND INDUSTRY AREA.

+ OF THE TWELVE, NINE (9) COMMUNITY COLLEGES GAVE ACTUAL CREDIT OR UNITS OF CREDIT IN AT LEAST ONE TRADE AND INDUSTRY AREA.

+ OF THE TWELVE, THREE (3) GAVE NO CREDIT OR UNITS OF CREDIT BUT DID GIVE ADVANCED STANDING.

(See "The Postscript" (Appendix) for the cover letter, survey form, and more detailed results of the poll.)

THE

PARTICIPANTS . . .

PARTICIPATING DISTRICTS

TRADE AND INDUSTRY ARTICULATION PROJECT

CERRITOS COMMUNITY COLLEGE DISTRICT

ABC UNIFIED	ARTESIA HIGH SCHOOL CERRITOS HIGH SCHOOL GAHR HIGH SCHOOL WHITNEY LEARNING CENTER SOUTHEAST L.A. COUNTY R.O.P. A.B.C. ADULT SCHOOL
BELLFLOWER UNIFIED	BELLFLOWER HIGH SCHOOL MAYFAIR HIGH SCHOOL SOMERSET CONTINUATION HIGH SCHOOL LOS ANGELES COUNTY R.O.P. BELLFLOWER ADULT SCHOOL
DOWNEY UNIFIED	DOWNEY HIGH SCHOOL WARREN HIGH SCHOOL COLUMBUS CONTINUATION HIGH SCHOOL LOS ANGELES COUNTY R.O.P DOWNEY ADULT SCHOOL
NORWALK-LA MIRADA UNIFIED	GLENN HIGH SCHOOL LA MIRADA HIGH SCHOO NORWALK HIGH SCHOOL SOUTHEAST L.A. COUNTY R.O.P. NORWALK-LA MIRADA ADULT SCHOOL
CERRITOS COMMUNITY COLLEGE DISTRICT	CERRITOS COLLEGE
* UNIVERSITIES/ COLLEGES	CALIFORNIA STATE UNIVERSITY--LONG BEACH CALIFORNIA STATE UNIVERSITY--FULLERTON CALIFORNIA STATE POLYTECHNIC UNIVERSITY--POMONA CALIFORNIA STATE UNIVERSITY--LOS ANGELES

* Participation Limited to Existing Articulation Agreements with Local Four-Year Schools

THE

PLANNERS . . .

(Part 1)

PLANNING COMMITTEE NO. 1

TRADE AND INDUSTRY ARTICULATION PROJECT

STEERING COMMITTEE MEMBERS

Mr. Richard E. Whiteman
Project Director and
Dean of Vocational Education
Cerritos College
11110 East Alondra Boulevard
Norwalk, CA 90650

Mrs. Betsy Stewart
Project Coordinator and
VEA Project Assistant
Cerritos College
11110 East Alondra Boulevard
Norwalk, CA 90650

* *

Dr. William Boakes
Project Monitor - Specialist
Program Evaluation and Approval
California Community Colleges
1238 S Street
Sacramento, CA 95814

Mr. Clinton V. Brown
Assistant Superintendent
Norwalk-La Mirada Unified School Dist.
12820 South Pioneer Boulevard
Norwalk, CA 90650

Dr. Chris Chialtas, Administrator
Career and Vocational Education
Office of L.A. County Supt. of School
9300 East Imperial Highway
Downey, CA 90242

Mr. Bedal Diaz
Associate Dean of Technology Division
Cerritos College
11110 East Alondra Boulevard
Norwalk, CA 90650

Mr. Jack Elder, Director
Norwalk-La Mirada Adult School
14800 South Jersey Avenue
Norwalk, CA 90650

Ms. Tricia Evans
Field Representative
Southeast L.A. County R.O.P.
15415 S. Pioneer Boulevard
Norwalk, CA 90650

Mr. Rogers Lindley
Principal
Bellflower Adult School
15332 South Eucalyptus Avenue
Bellflower, CA 90706

Dr. Fran Newman
Associate Dean of Counseling
Cerritos College
11110 East Alondra Boulevard
Norwalk, CA 90650

Mr. Don Pool, Manager
Employment Development Department
12715 South Pioneer Boulevard
Norwalk, CA 90650

Mrs. Judy Satterfield
Assistant Director
ABC Adult School
12254 Cuesta Drive
Cerritos, CA 90701

Mr. Chester Sutton
Principal
Downey Adult Center
11042 Brookshire Avenue
Downey, CA 90241

Cerritos Community College District

11110 East Alondra Blvd., Norwalk, CA 90650/(213) 860-2451
Serving Artesia, Bellflower, Cerritos, Downey, Hawaiian Gardens, Lakewood, La Mirada, Norwalk.

November 9, 1981

COPY

Mr. Don Pool, Manager
Employment Development Department
12715 South Pioneer Boulevard
Norwalk, CA 90650

Dear Don:

Cerritos College has received a grant to develop a Trade and Industry Articulation model for community colleges, secondary schools, ROP/C's, and adult schools. We will develop a working model of articulation which will enable students in the cities of Artesia, Bellflower, Cerritos, Downey, Hawaiian Gardens, Lakewood, La Mirada, and Norwalk to choose, coordinate, and follow a career ladder based on well developed articulation methods and curriculum. The project will serve as a model for the State of California.

Areas selected for articulation are auto body, automotive, drafting, electronics, machinists, and plastics.

We need you as a member of a select Steering Committee. Our first meeting is scheduled for Wednesday, December 2, 1981, from 9 a.m. to noon in the Board Room at Cerritos College. It is most important that you attend.

The purpose of the Steering Committee meeting is as follows:

1. To develop a list of members for an Advisory Committee required by the project.

2. To review the instructors assigned to articulated subject areas to insure success between the high schools, adult schools, ROP's, and the community college.

3. To develop strategies on how we can relate the concept of the project to the total group.

All five superintendents are well aware of the project and have given full support to the program. We look forward to meeting with you on December 2.

Sincerely,

Dick

Richard E. Whiteman
Project Director

REW:bgs Attachments: Agenda, Committee Members, Parking Permit

Board of Trustees: Louise Hastings, President; Louis Banas, Jr., Vice President; Hazel Scotto, Secretary; Harold T. Tredway, Richard M. Goal, Katie Nordbak, Chuck Fuentes, Members; Dr. Wilford Michael, President/Superintendent; Stuart Hayden, Student Member of the Board.

TRADE AND INDUSTRY ARTICULATION PROJECT

STEERING COMMITTEE MEETING

Wednesday, December 2, 1981

Board Room
Cerritos College

Continental Breakfast Served

1. Demonstration of Current Inventory of Classes

2. Goal/Objectives/Activities of Trade and Industry Articulation Project

3. Deliverers of Education Involved

4. Set up Members of Advisory Committee--date for meeting

5. Review Instructors in Articulated Areas

6. Set up Meeting Date for Instructor's Conference

7. Review Existing Instruments We Could Utilize:
   *A. Veysey Bill
   B. Hart Bill
   C. Articulation Agreement with Four-Year Institutions
   D. CHAR (College, High School, Adult School, ROP/C)
   *E. Credit by Examination Policy

8. Results of Statewide Survey

*Attached

(See "The Postscript" (Appendix) for minutes of Steering Committee Meeting)

REW:bgs
11/9/81

THE

PLANNERS . . .

(Part 2)

PLANNING COMMITTEE NO. 2

TRADE AND INDUSTRY ARTICULATION PROJECT

ADVISORY COMMITTEE MEMBERS

1981 - 1982

Richard E. Whiteman Project Director Cerritos College	Betsy Stewart Project Coordinator Cerritos College	William Boakes Specialist Chancellor's Office

AREA REPRESENTING	NAME	
Auto Body	Mervyn Nyenhuis	Bellwood Auto Body Service
Automotive	Roy Okimoto Karl Eisbrenner	Okimoto's Automotive Service Cerritos College Student
Drafting	William Tushar Karen Weiss	McDonnell Douglas Corporation Cerritos College Student
Electronics	Andrew Rodenbucher Andrew Granillo	Hughes Aircraft Company Cerritos College Student
Machinists	Jack Leighton	Anzon Company, Inc.
Plastics	Charles Brewer, Jr.	C. Brewer Company
Employment Develop. Dept.	Don Pool	Manager, Norwalk EDD
L.A. County Supt. Schools	Chris Chialtas	Administrator
ABC Unified School Dist.	Jack Profitt Judy Satterfield Willard Redfern	Coordinator, Vocational Education Assistant Director, Adult School Program Coordinator, Adult School
Bellflower Unified	Georgette Arnold Rogers Lindley	Program Specialist Principal, Adult School
Downey Unified	Joe Aquerrebere, Jr. Teresa Shuck Chester Sutton Fred Hershner	Staff Administrator, Downey High Assistant Principal, Warren High Principal, Adult School Job Placement Counselor, Adult School
Norwalk-La Mirada Unified	Clint Brown Jack Elder	Assistant Superintendent Director, Adult School
Los Angeles County ROP	Mike Fisher	Coordinator
Southeast LA County ROP	Trish Evans	Field Representative
Cerritos College	Keith Adams Fran Newman Bedal Diaz Bob Hughlett Vera Eckles Phil Rodriquez John Didion	Assistant Dean of Vocational Ed. Associate Dean of Counseling Associate Dean of Technology Coordinator, Handicapped Students Specialist, Wo/Man's Center Coordinator, EOPS Special Projects Writer

Cerritos Community College District

11110 East Alondra Blvd., Norwalk, CA 90650/(213) 860-2451
Serving Artesia, Bellflower, Cerritos, Downey, Hawaiian Gardens, Lakewood, La Mirada, Norwalk.

December 21, 1981

Mr. Andrew Rodenbucher
Hughes Aircraft Company
Attn: AJR TRL-RTG MG 195
P.O. Box 92426--AP Station
Los Angeles, CA 90009

COPY

Dear Mr. Rodenbucher:

Cerritos College has received a Trade and Industry Articulation Project Grant under VEA funding to develop a working model of articulation for the State of California. The project will focus on students in the cities of Artesia, Bellflower, Cerritos, Downey, Hawaiian Gardens, Lakewood, La Mirada, and Norwalk and will enable them to choose, coordinate, and follow a career ladder based on well developed articulation methods and curriculum.

Areas selected for articulation are auto body, automotive, electronics, drafting, machine tool, and plastics. We need your expertise in the electronics area.

An Advisory Committee is mandated by the project. We need you as a member of that Advisory Committee and invite you to attend the first meeting scheduled for:

DATE: Wednesday, January 13, 1982

TIME: 1:00 p.m. to 3:00 p.m.

PLACE: Cerritos College Board Room
11110 East Alondra Boulevard
Norwalk, CA 90650

The Committee will terminate at the end of the project and there will be no more than two meetings. Please R.S.V.P. on the attached postcard.

The Steering Committee met December 2, 1981, and discussed the project to save the Advisory Committee some of the nitty-gritty. Minutes of that meeting are attached.

Please attend the meeting on January 13. We need your advice and input.

Sincerely,

Richard E. Whiteman
Project Director

Board of Trustees: Louise Hastings, President; Louis Banas, Jr., Vice President; Hazel Scotto, Secretary; Harold T. Tredway, Richard M. Goul, Katie Nordbak, Chuck Fuentes, Members; Dr. Wilford Michael, President/Superintendent; Stuart Hayden, Student Member of the Board.

REW:bgs
cc: Mr. Allen Frankley

ADVISORY COMMITTEE MEETING

TRADE AND INDUSTRY ARTICULATION PROJECT

WEDNESDAY, JANUARY 13, 1982

1:00 - 3:00 p.m.

Cerritos College Board Room

AGENDA

1. Call to Order and Self Introductions — Richard Whiteman
2. Review and/or Comments Of Steering Committee Meeting Minutes (mailed in December) — All Representatives
*3. Discussion Regarding SAMPLE Articulation Agreement Catonsville Community College (Maryland) — All Representatives
4. Review of Packets In Articulated Areas

A. ELECTRONICS	Student Input:	Andrew Granillo
	Employer Input:	Mr. Rodenbucher
	Other Input:	
B. DRAFTING	Student Input:	Karen Weiss
	Employer Input:	Mr. Tushar
	Other Input:	
C. AUTOMOTIVE	Student Input:	Karl Eisbrenner
	Employer Input:	Mr. Okimoto
	Other Input:	
D. AUTO BODY	Employer Input:	Mr. Nyenhuis
	Other Input:	
E. MACHINISTS	Employer Input:	Mr. Leighton
	Other Input:	
F. PLASTICS	Employer Input:	Mr. Brewer
	Other Input:	

5. Assignments to Set up Instructor Meetings — Diaz/Whiteman

A. ABC Unified Minimum Day	Jan. 29, 8:00 - 2:30	Profitt/Satterfield/Evans
B. Bellflower Unified Minimum	Jan. 29 until 12:20 Feb. 1, 8:00 - 3:00	Arnold/Lindley/Fisher
C. Downey Unified Minimum	Jan. 26, 27, 28	Aquerrebere/Sutton/Fisher
D. Norwalk-La Mirada Unified	Jan. 29	Brown/Elder/Evans

6. Input Re. Women, Handicapped, and Disadvantaged — Eckles/Hughlett/Rodriquez

*ATTACHED: Please review the attached Final Report (extracted pages) from the Maryland Electronics Articulation Workshop, 1977, and be prepared to discuss how the Articulation Agreement, Page 3, and the rest of the package could apply to our Articulation Project not only in electronics, but in automotive, auto body, drafting, machinists, and plastics as well.

(See "The Postcript" (Appendix) for minutes of Advisory Committee)

BGS:1/6/82

THE

PLAYERS . . .

THE PLAYERS

TRADE AND INDUSTRY ARTICULATION PROJECT

72 FULL-TIME INSTRUCTORS

SUBJECT AREA	NO. INSTRUCTORS INVOLVED*
AUTO BODY	7
AUTOMOTIVE	20
DRAFTING/ARCHITECTURE	16
ELECTRONICS	13
MACHINE TOOL	13
PLASTICS	3
	72

*THIS IS AN UNDUPLICATED COUNT (NOTE: Some instructors teach high school classes as well as ROP classes in the day and perhaps an adult school or Cerritos College class at night.)

TRADE AND INDUSTRY ARTICULATION PROJECT

CERRITOS COMMUNITY COLLEGE DISTRICT

INSTRUCTORS

			INSTRUCTORS IN ARTICULATED SUBJECT AREAS					
DIST.	SCHOOL	PRINCIPAL	AUTO BODY	AUTOMOTIVE	DRAFTING	ELECTRONICS	MACHINISTS	PLASTICS
-25- ABC UNIFIED	ARTESIA HIGH	Mara Clisby	-	Chuck Sherard	James Baird	-	Al Vaught	-
	CERRITOS HIGH	Stan Steddom	-	Robert Perry	Sam Bisogno	W. Wakumoto	Chris Prats	-
	GAHR HIGH	John Viculin	-	Steven Bruhns	William McKee	Steven Bruhns	Steve Young	-
	WHITNEY LRNG CTR	Robert Beall	-	-	Robt. Collins	-	-	-
	SELACO ROP	Lowell Holiday	Lee Barger Tony Enriquez -	Lee Barger Gary Densham J. Fernandez Walter Kangas		W. Wakumoto	Chris Prats Steve Young	-
	ADULT SCHOOL	Raymond Capps	-	Doug Shell Robert Tarr	-	-	-	-
BELLFLOWER UNIFIED	BELLFLOWER HIGH	Merwyn Smith	-	Floyd Link	-	Terry Gibson	J. Hooper/A. Stout	-
	MAYFAIR HIGH	Donn Ashton	-	Rod Sandquist	William Stamm	-	Rob. Brevidoro	-
	SOMERSET	Andrew Meyer	-	-	-	-	-	-
	LA COUNTY ROP	Clell Hoffman	-	-	-	-	-	-
	ADULT SCHOOL	Rogers Lindley	-	-	-	Steve Cocca	-	-
DOWNEY UNIFIED	DOWNEY HIGH	Chavez Moses	-	Charles Huth	R. Williams	James Vinci	F. Shannon	H. Grundman
	WARREN HIGH	Wm. Spruston	-	-	Pete Dekker	Frank Griffin	M. Griswold	-
	COLUMBUS HIGH	Arden Hirschie	-	Garland Baker	-	-	-	-
	LA COUNTY ROP	Clell Hoffman	-	-	-	-	-	-
	ADULT SCHOOL	Chester Sutton	-	-	-	Frank Griffin	-	-

1981-82 BGS Revised 12/3/81 Revised 12/17/81

			INSTRUCTORS IN ARTICULATED SUBJECT AREAS					
DIST.	SCHOOL	PRINCIPAL	AUTO BODY	AUTOMOTIVE	DRAFTING	ELECTRONICS	MACHINISTS	PLASTICS
NORWALK-LA MIRADA UNIFIED	EL CAMINO	Columba Kaufman	-	-	Stan Sypien	-	-	-
	GLENN HIGH	Elias Galvan	-	J Householder	Bill Hollis	Dave Hauske	Pete Wright	-
	LA MIRADA HIGH	Les Billinger	-	S. Berklite	Don Gibson Jim Wilcox	-	-	-
	NORWALK HIGH	E.D. Eberhard	-	Ronald Lew	Ed Lynn Derol Niebuhr	David Johnson	-	Lew Crabb
	SELACO ROP	Lowell Holiday	Doug Downer	S. Berklite Ronald Lew J Householder	Don Gibson	-	Pete Wright	Lew Crabb
	ADULT SCHOOL	Jack Elder	-	S. Berklite Lou Kauder	-	Wilton Gloege	Ray Jared	-
CERRITOS COLLEGE	CERRITOS COLLEGE	W. Michael	Robt. Asperin Larry Craig J. Shopfner Mo Vigil	Roger Beam John Jackson Greg Keegan Stan Lucas	C. Hofflund R. Smith Ed Weaver	A. Austin Ed Dunkin G. Hubrecht Roy Wilson	Paul Henry F. Blaszcak G. Tollefson	Terry Price

THE

POOLING . . .

POOLING OF RESOURCES

TRADE AND INDUSTRY ARTICULATION PROJECT

I. MEETINGS WITH INSTRUCTORS

*DOWNEY UNIFIED	TUESDAY, JANUARY 26, 1982
*NORWALK-LA MIRADA UNIFIED	FRIDAY, JANUARY 29, 1982
*BELLFLOWER UNIFIED	MONDAY, FEBRUARY 1, 1982
ABC UNIFIED	THURSDAY, FEBRUARY 25, 1982 WEDNESDAY, MARCH 10, 1982

II. OBJECTIVES

+ TO COMPARE COURSE OUTLINES
+ TO COMPARE TEXTBOOKS
+ TO COMPARE METHODS OF INSTRUCTION

III. RESULTS

+ ARTICULATED CURRICULA
+ COMPUTERIZATION OF ARTICULATED COURSES

*MINIMUM SCHOOL DAY FOR LEA'S

THE

PACKET . . .

CONTENTS OF PACKET

TRADE AND INDUSTRY ARTICULATION PROJECT

INSTRUCTORS AND OTHERS INVOLVED IN THE TRADE AND INDUSTRY ARTICULATION PROJECT WERE EACH GIVEN A PACKET OR TWO-SIDED COLOR-CODED PORTFOLIO FOR THEIR INDIVIDUAL SUBJECT AREA:

AUTO BODY	= YELLOW	DRAFTING	= BLUE
AUTOMOTIVE	= GREEN	MACHINE TOOL	= BROWN
ELECTRONICS	= RED	PLASTICS	= BLACK

EACH PACKET CONTAINED THE FOLLOWING INFORMATION:

LEFT SIDE

- DEFINITION OF ARTICULATION
- PLUSES OF ARTICULATION
- MINUTES OF STEERING COMMITTEE MEETING, DECEMBER 2, 1981
- MINUTES OF ADVISORY COMMITTEE MEETING, JANUARY 13, 1982
- COURSE OUTLINES INCLUDING HIGH SCHOOL/ROP/ADULT SCHOOLS:
  - ABC UNIFIED SCHOOL DISTRICT
  - BELLFLOWER UNIFIED SCHOOL DISTRICT
  - DOWNEY UNIFIED SCHOOL DISTRICT
  - NORWALK-LA MIRADA UNIFIED SCHOOL DISTRICT

RIGHT SIDE

- LIST OF INSTRUCTORS
- LIST OF ALL COURSES IN EVERY DISTRICT FOR PARTICULAR SUBJECT AREA
- CERRITOS COLLEGE CATALOG COURSE DESCRIPTIONS
- CERRITOS COLLEGE COURSE OUTLINES

THE

POLICY . . .

CERRITOS COLLEGE POLICY

Cerritos College has articulation agreements with its "feeder" unified school districts to grant credit by articulation in the following trade and industry subject areas: auto body, automotive, drafting/architecture, electronics, machine tool, and plastics.

Articulation is generally considered as a systematic process that will permit students to move from one course, program, or educational level to the next without loss ot time or resources. A guiding principle of articulation is that no student should be required to repeat the same course content for which credit was received.

Credit by articulation will be awarded to a student meeting the following criteria:

1. The student shall complete an articulated course/s in the articulated program at one of the participating high schools, regional occupational programs, or adult schools with a grade of A or B.

2. The student shall present a "Letter of Articulation Certification" form signed by his/her instructor and principal certifying he/she has successfully completed the course/s at the high school, ROP, or adult school.

3. In order to receive the credit, the student must enroll in a class at Cerritos College in the articulated subject area within two (2) years from the semester date which the course was completed at the high school/ROP/adult school.

4. The student may register for the next course in the curriculum sequence.

5. After the student is <u>enrolled</u> at Cerritos College and has satisfactory scholastic standing, the student may petition for Credit by Examination <u>PRIOR</u> to completing a higher level course in the subject area being challenged.

6. In keeping with Cerritos College's "Credit by Examination" policy, no more than 12 units of credit may be accepted for "Credit by Articulation."

THE

PLAN . . .

ARTICULATION AGREEMENT

TRADE AND INDUSTRY ARTICULATION PROJECT

_____ Unified School District
to Cerritos Community College

Cerritos Community College has agreed to grant college credit to students completing the _____ course/s at _____ Unified School District, _____ (Name of School), as follows:

HS/ROP/Adult School Course	Articulates to:	Cerritos College Course	(Units)
_____		_____	
_____		_____	
_____		_____	
_____		_____	

* * * *

DOUG DOWNER
INSTRUCTOR

ARTICULATION AGREEMENT

TRADE AND INDUSTRY ARTICULATION PROJECT

COPY

NORWALK-LA MIRADA Unified School District
to Cerritos Community College

Cerritos Community College has agreed to grant college credit to students completing the AUTO BODY course/s at NORWALK-LA MIRADA Unified School District, NORWALK HIGH SCHOOL (Name of School), as follows:

HS/ROP/Adult School Course	Articulates to:	Cerritos College Course	(Units)
AUTO BODY REPAIR (ROP)	Articulates to:	AUTO BODY 11	4
	Articulates to:		
	Articulates to:		
	Articulates to:		

* * * \

THE

PROOF . . .

41

(USE BALL-POINT PEN ONLY)
(PRESS FIRMLY--THIS IS A FIVE-PART FORM)

Letter of Articulation Certification

(FOR INSTRUCTOR USE) PART I

TO: Cerritos Community College Technology Counselor

FROM: _____
(Name of Instructor) (Subject Area) (School)

DATE: _____

SUBJECT: ARTICULATED CREDIT CERTIFICATION

This is to certify that _____ has successfully completed the articulated
(Name of Student)
_____ program as of _____.
(Name of Subject Area) (Date)

Based upon the Articulation Agreement, it is recommended that credit be given for the following Cerritos Community College course/s after the student completes further eligibility requirements as stated in the Articulation Agreement:

(List applicable Cerritos College Courses/s and Units)	(Date Course/s Completed)
_____	_____
_____	_____
_____	_____

The undersigned certify that the student has met the criteria as defined in the Articulation Agreement for the course/s produced by representatives of the _____ Unified School District and Cerritos College dated March, 1982, and has received an A or B grade in the course/s.

_____
(Instructor)

_____
(Principal)

(FOR COUNSELOR AND STUDENT USE) PART II

I have met with my Cerritos College Counselor and understand that I must schedule a future appointment before

_____ to have my counselor verify my eligibility to petition for "Credit by
(date)
Examination" as stated below.

_____ _____ _____ _____
(Signature of Student) (Date) (Signature of Counselor) (Date)

(FOR COUNSELOR USE ONLY) PART III

This student is eligible to petition for "Credit by Examination" for the above course/s because he or she:

	YES	NO
A. is currently enrolled in semester of petition.	___	___
B. has satisfactory scholastic standing (accumulated GPA of 2.0 in all college units attempted. New entry student has satisfactory scholastic standing.)	___	___
C. has completed articulated subject area course/s within past two (2) years.	___	___
D. has not completed the next higher level course in the articulated subject area at Cerritos College.	___	___
E. is within the 12 unit maximum for "Credit by Examination".	___	___

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_____ _____
(Signature of Counselor) (Date)

CC Form CG-10 5/82

STUDENT

THE

PROCEDURE . . .

TRADE AND INDUSTRY ARTICULATION PROJECT

INSTRUCTIONS TO THE STUDENT

IMPORTANT NOTE: to receive Cerritos College credit for the articulated course or courses you passed at your high school, adult school, regional occupational program, you MUST enroll in a class or classes at Cerritos College in the articulated subject area WITHIN TWO (2) YEARS from the semester date which you completed your course/s at the secondary level.

FOLLOW THESE STEPS

1. Apply for admission to Cerritos College through the Admissions Office.

2. Make an appointment to see your technology counselor.

3. BRING YOUR LETTER OF ARTICULATION CERTIFICATION to your counseling appointment so your counselor can certify you are eligible to enroll in the next course in the curriculum sequence. KEEP ALL COPIES OF THIS LETTER IN A SAFE PLACE.

4. Register for your classes on the date specified on your appointment card.

5. SCHEDULE AN APPOINTMENT and return to your counselor on the date specified on your Letter of Articulation Certification (Part II). Your counselor will then verify if you are eligible to petition for Credit by Examination (Part III).

   IMPORTANT NOTE: YOU MUST INITIATE THE PETITION FOR CREDIT BY EXAMINATION PRIOR TO COMPLETING A HIGHER LEVEL COURSE IN THE SUBJECT AREA BEING CHALLENGED.

6. Your counselor will give you the petition for Credit by Examination signifying your proficiency was acquired via the Trade and Industry Articulation Agreement. Your counselor will then instruct you as to the procedure to follow.

5/82

THE

PREDICTION . . .

TRADE AND INDUSTRY ARTICULATION PROJECT

STUDENT PREDICTIONS

SUMMARY

Based on a survey of instructors at the secondary level, 376 students will complete coursework in one of the six articulated subject areas with an A or B at the end of Spring semester, 1982, AND are predicted to enroll at Cerritos College within the time limitation set forth under the Trade and Indstry Articulation Agreement (two years).

The survey results are based on a response of 32 of the 40 secondary-level instructors whose classes actually articulate with Cerritos College (80% response rate).

CERRITOS COLLEGE ARTICULATED CLASS	HRS/CLASS	NUMBER OF SPRING, 1982, SECONDARY-LEVEL STUDENTS PREDICTED TO ENROLL AT CERRITOS COLLEGE WITHIN TIME LIMIT (NEXT TWO YEARS)
AB 11	8	17
IA 15 (Automotive)	6	115
Arch 11	6	52
Arch 21	6	5
Draf 31	4	53
Draf 32	6	18
Draf 50	4	2
Draf 53	6	2
		132 Total
IA 10 (Electronics)	6	56
MT 11	4	35
IA 12 (Plastics)	4	5
PMT 14	4/9 wk	3
PMT 19	3/9 wk	13
		21 Total
		376 TOTAL

(See "The Postscript" (Appendix D) on Page 114 for cover letter and Student Prediction Form.)

THE

PRESENTATIONS . . .

THE PRESENTATIONS

TWO STATEWIDE WORKSHOPS WERE HELD TO DEMONSTRATE THE TRADE AND INDUSTRY ARTICULATION PROJECT.

DUE TO BUDGET RESTRICTIONS ON TRAVEL AND CONFERENCE EXPENSES AT ALL LEVELS, AN EFFORT WAS MADE TO HOLD WORKSHOPS IN CONJUNCTION WITH EXISTING SCHEDULED CONFERENCES.

THE FIRST WORKSHOP WAS HELD IN MONTEREY ON APRIL 13, 1982, IN CONJUNCTION WITH THE CALIFORNIA COMMUNITY COLLEGES DEANS OF OCCUPATIONAL EDUCATION CONFERENCE (CCCAOE).

THE SECOND WORKSHOP WAS HELD IN SAN FRANCISCO ON APRIL 30, 1982, IN CONJUNCTION WITH THE STATEWIDE VOCATIONAL EDUCATION CONFERENCE. ATTENDANCE AT THE OVER-ALL CONFERENCE WAS EXCELLENT (500+) AND INCLUDED REPRESENTATIVES NOT ONLY FROM CALIFORNIA COMMUNITY COLLEGES BUT FROM SECONDARY SCHOOLS AND REGIONAL OCCUPATIONAL PROGRAMS/CENTERS AS WELL.

THE

PLAUDIT . . .

Cerritos Community College District

11110 East Alondra Blvd., Norwalk, CA 90650/(213) 860-2451
Serving Artesia, Bellflower, Cerritos, Downey, Hawaiian Gardens, Lakewood, La Mirada, Norwalk.

June 1, 1982

SAMPLE OF LETTER SENT TO EVERY PARTICIPANT (INSTRUCTOR) WITH COPY TO HIS/HER ADMINISTRATOR

Mr. Doug Downer
Auto Body Instructor
SELACO ROP
15415 S. Pioneer Blvd.
Norwalk, CA 90650

Dear Mr. Downer:

Thank you so much for your help in the Trade and Industry Articulation Project coordinated by Cerritos College with the four Unified School Districts in this area.

Your cooperation has made it possible to develop an articulated curriculum in the auto body area so that your students might progress smoothly from your class to Cerritos College classes without unnecessary duplication.

Attached are three files for your immediate use:

1. ARTICULATION AGREEMENT
   COMPUTER PRINTOUT--ARTICULATED COURSES

2. LETTER OF ARTICULATION CERTIFICATION

   Please fill out Part I of the letter form for each of the students completing the articulated course/s with an A or B grade AT THE END OF THIS SEMESTER. NOTE: this is a five-part form.

3. INSTRUCTIONS TO THE STUDENT

   Please give each student receiving the letter a copy of these instructions.

We look forward to your continued cooperation and support to successfully implement this program. Thank you again for helping to provide a model project for the entire state of California.

Richard E. Whiteman
Dean of Vocational Education
Cerritos College

Betsy Stewart
Project Coordinator
Cerritos College

REW:bgs
cc: Doc Holiday

Board of Trustees: Louis Banas Jr., President; Richard M. Goul, Vice President; Harold T. Tredway, Secretary; Robert Epple, Katie Nordbak, Hazel M. Scotto, Ada Steenhoek, Members; Dr. Wilford Michael, President/Superintendent; Craig Georganna, Student Member of the Board.

THE

PRINTOUTS . . .

AUTO BODY

ART25R - 06-01-82 VOCATIONAL COURSE ARTICULATION INFORMATION PAGE 01

DESCRIPTOR: (AB) = Auto Body Southeast L.A. County R.O.P. DISTRICT: (SROP)

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	DOT CODE	DOT DESCRIPTION	O
00012	1	AUTO BODY REPAIR		10.00	CER HS	NO	AB 11	-	807.381-010	A/B REPAIRER	N
									807.687-010	A/B REPAIR-HELP	
									845.381-014	AUTO PAINTER	
									845.684-014	AUTO PAINT-HELP	
00013	1	AUTO BODY REPAIR		10.00	NOR HS	NO	AB 11	-	807.381-010	SAME AS ABOVE	N
									807.687-010	SAME AS ABOVE	
									845.381-014	SAME AS ABOVE	
									845.684-014	SAME AS ABOVE	
00014	1	AUTO BODY REPAIR		10.00	TRN CTR	NO	AB 11	-	807.381-010	SAME AS ABOVE	N
									807.687-010	SAME AS ABOVE	
									845.381-014	SAME AS ABOVE	
									845.684-014	SAME AS ABOVE	

DESCRIPTOR: (AB) Auto Body Cerritos College DISTRICT: (CCCV)

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	DOT CODE	DOT DESCRIPTION	O
00015	5	COLLISION REP I	AB 11	4.00	CER COL	NO	-	NO			N
00016	4	AUTOMOTIVE WELDING	AB 12	2.00	CER COL	NO	-	NO			N
00017	6	COLLISION REP II	AB 21	4.00	CER COL	YES	-	NO			N
00018	6	AUTO WELDING, ADV	AB 22	2.00	CER COL	YES	-	NO			N
00019	6	AUTO REFINISHING	AB 23	4.00	CER COL	YES	-	NO			N
00020	6	COLL REP-DAM EST	AB 24	3.00	CER COL	YES	-	NO			N
00021	6	AUTO REFINISH I	AB 25	4.00	CER COL	YES	-	NO			N
00022	6	COLL REP-REFINISH	AB 31.1	4.00	CER COL	YES	-	NO			N
00023	6	AUTO PAINT-COLOR	AB 33.1	3.00	CER COL	YES	-	NO			N

LEV = LEVEL

1 = BEGINNING HIGH SCHOOL, ROP, ADULT SCHOOL
2 = INTERMEDIATE HIGH SCHOOL, ROP, ADULT SCHOOL
3 = ADVANCED HIGH SCHOOL, ROP, ADULT SCHOOL
4 = BEGINNING CERRITOS COLLEGE
5 = INTERMEDIATE CERRITOS COLLEGE
6 = ADVANCED CERRITOS COLLEGE
8 = BACCALAUREATE (TRANSFERABLE FOR CREDIT)

DISTRICT

ABCA=ABC ADULT SCHOOL
ABCH=ABC HIGH SCHOOLS
BELA=BELLFLOWER ADULT SCHOOL
BELH=BELLFLOWER HIGH SCHOOLS
CCCA=CERRITOS COLLEGE ADULT EDUCATION
CCCV=CERRITOS COLLEGE VOCATIONAL
DOWA=DOWNEY ADULT SCHOOL
DOWH=DOWNEY HIGH SCHOOLS
LROP=LOS ANGELES COUNTY ROP
NLMA=NORWALK-LA MIRADA ADULT SCHOOL
NLMH=NORWALK-LA MIRADA HIGH SCHOOLS
SROP=SOUTHEAST LOS ANGELES COUNTY ROP

DESCRIPTOR: AB DISTRICT: CCCV

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	D
00024	6	COLL-DAMAGE EST	AB 34.1	3.00	CER COL	YES	-	NO			N
00025	6	AUTO REFINISH II	AB 35	4.00	CER COL	YES	-	NO			N
00026	6	COLL REP-PROJECTS	AB 41	3.00	CER COL	YES	-	NO			N
00027	6	CHASSIS REP & REF	AB 42	3.00	CER COL	YES	-	NO			N
00028	6	COLL REPAIR SPEC	AB 48	3.00	CER COL	YES	-	NO			N
00029	6	COLL REPAIR SPEC	AB 49	5.00	CER COL	YES	-	NO			N
00030	6	COLL REPAIR MGMT	AB 51	3.00	CER COL	YES	-	NO			N

LEV = LEVEL

1 = BEGINNING HIGH SCHOOL, ROP, ADULT SCHOOL
2 = INTERMEDIATE HIGH SCHOOL, ROP, ADULT SCHOOL
3 = ADVANCED HIGH SCHOOL, ROP, ADULT SCHOOL
4 = BEGINNING CERRITOS COLLEGE
5 = INTERMEDIATE CERRITOS COLLEGE
6 = ADVANCED CERRITOS COLLEGE
B = BACCALAUREATE (TRANSFERABLE FOR CREDIT)

D I S T R I C T

ABCA=ABC ADULT SCHOOL
ABCH=ABC HIGH SCHOOLS
BELA=BELLFLOWER ADULT SCHOOL
BELH=BELLFLOWER HIGH SCHOOLS
CCCA=CERRITOS COLLEGE ADULT EDUCATION
CCCV=CERRITOS COLLEGE VOCATIONAL
DOWA=DOWNEY ADULT SCHOOL
DOWH=DOWNEY HIGH SCHOOLS
LROP=LOS ANGELES COUNTY ROP
NLMA=NORWALK-LA MIRADA ADULT SCHOOL
NLMH=NORWALK-LA MIRADA HIGH SCHOOLS
SROP=SOUTHEAST LOS ANGELES COUNTY ROP

AUTOMOTIVE

ART25R - 06-01-82 VOCATIONAL COURSE ARTICULATION INFORMATION PAGE 03

DESCRIPTOR: AUTO = Automotive — ABC Adult School — DISTRICT ABCA

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	O
00231	1	AUTO AIR COND COOL		0.00	ART HS	NO	IA 15*	-			N
		*ONLY IF TAKEN WITH AUTO TUNE-UP/ELECT AND AUTO BRAKES/WHEEL									
00228	1	AUTO BRAKES, WHEEL		0.00	ART HS	NO	IA 15*	-			N
		*ONLY IF TAKEN WITH AUTO TUNE-UP/ELECT AND AUTO AIR COND									
00229	1	AUTO MECHANICS-BEG		0.00	ART HS	NO	IA 15	-			N
00230	1	AUTO TUNE UP/ELECT		0.00	ART HS	NO	IA 15*	-			N
		*ONLY IF TAKEN WITH AUTO BRAKE & WHEEL AND AUTO AIR COND									

DESCRIPTOR: AUTO = Automotive — ABC High Schools — DISTRICT ABCH

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	O
00215	1	AUTO I		5.00	ART HS	NO	NO	-			N
00216	2	AUTO II		10.00	ART HS	YES	IA 15	-			N
00217	3	AUTO III		10.00	ART HS	YES	IA 15	-			N
00213	1	AUTO-COED		5.00	ART HS	NO	NO	-			N
00214	1	AUTO-IND ARTS		5.00	ART HS	NO	NO	-			N
00218	1	AUTO I		5.00	CER HS	NO	NO	-			N
00221	1	SERVICE STA MECH*		10.00	CER HS	NO	*SEE SROP	-			N
		*THIS IS AN ROP COURSE			*SEE DISTRICT = SROP						
00219	1	AUTO I/AUTO ELECT		5.00	GAHR HS	NO	NO	-			N
00220	2	AUTO II		5.00	GAHR HS	YES	IA 15	-			N
00222	1	AUTO MECHANICS*		10.00	GAHR HS	NO	*SEE SROP	-			N
		*THIS IS AN ROP COURSE			*SEE DISTRICT = SROP						

LEV = LEVEL

1 = BEGINNING HIGH SCHOOL, ROP, ADULT SCHOOL
2 = INTERMEDIATE HIGH SCHOOL, ROP, ADULT SCHOOL
3 = ADVANCED HIGH SCHOOL, ROP, ADULT SCHOOL
4 = BEGINNING CERRITOS COLLEGE
5 = INTERMEDIATE CERRITOS COLLEGE
6 = ADVANCED CERRITOS COLLEGE
B = BACCALAUREATE (TRANSFERABLE FOR CREDIT)

DISTRICT

ABCA=ABC ADULT SCHOOL
ABCH=ABC HIGH SCHOOLS
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DOWH=DOWNEY HIGH SCHOOLS
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NLMA=NORWALK-LA MIRADA ADULT SCHOOL
NLMH=NORWALK-LA MIRADA HIGH SCHOOLS
SROP=SOUTHEAST LOS ANGELES COUNTY ROP

DESCRIPTOR (AUTO) = Automotive — Bellflower High Schools — DISTRICT (BELH)

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	O
00232	1	AUTO SHOP I		5.00	BEL HS	NO	NO	-			N
00233	2	AUTO SHOP II		5.00	BEL HS	NO	IA 15	-			N
00234	3	AUTO VOCATIONAL		10.00	BEL HS	NO	IA 15	-			N
00273	1	AUTO AGENCY OCCUP* *THIS IS AN ROP COURSE		10.00	MAY HS *SEE DISTRICT = LROP	NO	*SEE LROP	-			N
00236	1	AUTO FUNDAMENTALS		5.00	MAY HS	NO	NO	-			N
00235	1	AUTO SHOP I		5.00	MAY HS	NO	IA 15	-			N

DESCRIPTOR (AUTO) = Automotive — Downey High Schools — DISTRICTS (DOWH)

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	O
00238	1	MECHANICS I		5.00	COLUMB	NO	NO	-			N
00240	1	MECHANICS I		2.00	DOW HS	NO	NO	-			N
00239	2	MECHANICS VOC		10.00	DOW HS	YES	IA 15	-			N

DESCRIPTOR (AUTO) = Automotive — Los Angeles County R.O.P. — DISTRICT (LROP)

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	O
00241	1	AUTO AGENCY OCCUP		10.00	MAY HS	NO	IA 15	-			N

LEV = LEVEL

1 = BEGINNING HIGH SCHOOL, ROP, ADULT SCHOOL
2 = INTERMEDIATE HIGH SCHOOL, ROP, ADULT SCHOOL
3 = ADVANCED HIGH SCHOOL, ROP, ADULT SCHOOL
4 = BEGINNING CERRITOS COLLEGE
5 = INTERMEDIATE CERRITOS COLLEGE
6 = ADVANCED CERRITOS COLLEGE
B = BACCALAUREATE (TRANSFERABLE FOR CREDIT)

DISTRICT

ABCA=ABC ADULT SCHOOL
ABCH=ABC HIGH SCHOOLS
BELA=BELLFLOWER ADULT SCHOOL
BELH=BELLFLOWER HIGH SCHOOLS
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DOWA=DOWNEY ADULT SCHOOL
DOWH=DOWNEY HIGH SCHOOLS
LROP=LOS ANGELES COUNTY ROP
NLMA=NORWALK-LA MIRADA ADULT SCHOOL
NLMH=NORWALK-LA MIRADA HIGH SCHOOLS
SROP=SOUTHEAST LOS ANGELES COUNTY ROP

ART25R - 06-01-82 VOCATIONAL COURSE ARTICULATION INFORMATION PAGE 05

DESCRIPTOR: AUTO = Automotive — Norwalk - La Mirada Adult School — DISTRICT: NLMA

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	O
00243	3	AUTO MECH ADV		0.00	EXCELS	YES	IA 15	-			N
00242	1	AUTO MECH BEG		0.00	LA MIR	NO	IA 15	-			N

DESCRIPTOR: AUTO = Automotive — Norwalk - La Mirada High Schools — DISTRICT: NLMH

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	O
00251	1	FOREIGN CAR REP*		10.00	GLENN	NO	*SEE SROP	-			N
		*THIS IS AN ROP COURSE			*SEE DISTRICT = SROP						
00244	1	AUTO 1	221	5.00	GLENN	NO	IA 15	-			N
00245	2	AUTO 2	222	5.00	GLENN	YES	IA 15	-			N
00246	3	AUTO 3	223	5.00	GLENN	YES	IA 15	-			N
00252	1	AUTO MECHANICS*		10.00	LA MIR	NO	*SEE SROP	-			N
		*THIS IS AN ROP COURSE			*SEE DISTRICT = SROP						
00247	1	AUTO 1	221	5.00	LA MIR	NO	IA 15	-			N
00248	2	AUTO 2	222	5.00	LA MIR	YES	IA 15	-			N
00253	1	AUTO MECHANICS*		10.00	NOR HS	NO	*SEE SROP	-			N
		*THIS IS AN ROP COURSE			*SEE DISTRICT = SROP						
00249	1	AUTO 1	221	5.00	NOR HS	NO	IA 15	-			N
00250	2	AUTO 2	222	5.00	NOR HS	YES	IA 15	-			N

DESCRIPTOR: AUTO — DISTRICT: SROP

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	O

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LEV = LEVEL

1 = BEGINNING HIGH SCHOOL, ROP, ADULT SCHOOL
2 = INTERMEDIATE HIGH SCHOOL, ROP, ADULT SCHOOL
3 = ADVANCED HIGH SCHOOL, ROP, ADULT SCHOOL
4 = BEGINNING CERRITOS COLLEGE
5 = INTERMEDIATE CERRITOS COLLEGE
6 = ADVANCED CERRITOS COLLEGE
B = BACCALAUREATE (TRANSFERABLE FOR CREDIT)

DISTRICT

ABCA=ABC ADULT SCHOOL
ABCH=ABC HIGH SCHOOLS
BELA=BELLFLOWER ADULT SCHOOL
BELH=BELLFLOWER HIGH SCHOOLS
CCCA=CERRITOS COLLEGE ADULT EDUCATION
CCCV=CERRITOS COLLEGE VOCATIONAL
DOWA=DOWNEY ADULT SCHOOL
DOWH=DOWNEY HIGH SCHOOLS
LROP=LOS ANGELES COUNTY ROP
NLMA=NORWALK-LA MIRADA ADULT SCHOOL
NLMH=NORWALK-LA MIRADA HIGH SCHOOLS
SROP=SOUTHEAST LOS ANGELES COUNTY ROP

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DESCRIPTOR: AUTO = Automotive Southeast L.A. County R.O.P. DISTRICT: SROP

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	D
00223	1	SERVICE STA MECH		10.00	CER HS	NO	NO	-	620.281-066	TUNE UP MECH	N
									620.281-026	BRAKE REPAIRER	
									620.281-034	CARBURETOR MECH	
									620.281-038	FRONT END MECH	
00224	1	AUTO MECHANICS		10.00	GAHR HS	NO	IA 15	-	620.281-066	AUTO MECHANIC	N
									620.281-026	BRAKE MECHANIC	
									620.281-062	TRANS MECHANIC	
									620.281-066	AUTO SERV MECH	
									620.684-014	AUTO MECH, HELP	
									620.261-010	AIR COND MECH	
00254	1	FOREIGN CAR REPAIR		10.00	GLENN	NO	NO	-	620.261-010	FOR CAR MECH	N
									620.684-014	AUTO MECH, HELP	
									620.281-026	BRAKE MECH	
									620.281-066	TUNE-UP MECH	
00255	1	AUTO MECHANICS		10.00	LA MIR	NO	IA 15	-	620.281-066	AUTO MECHANIC	N
									620.281-026	BRAKE MECHANIC	
									620.281-062	TRANS MECHANIC	
									620.281-066	AUTO SERV MECH	
									620.684-014	AUTO MECH, HELP	
									620.281-010	AIR COM MECH	
00256	1	AUTO MECHANICS		10.00	NOR HS	NO	IA 15	-	620.281-066	AUTO MECHANIC	N
									620.281-026	BRAKE MECHANIC	
									620.281-062	TRANS MECHANIC	
									620.281-066	AUTO SERV MECH	
									620.684-014	AUTO MECH, HELP	
									620.281-010	AIR COND MECH	
00225	1	AUTO MECHANICS		10.00	TRN CTR	NO	IA 15	-	620.281-066	AUTO MECHANIC	N
									620.281-026	BRAKE MECHANIC	
									620.281-062	TRANS MECHANIC	
									620.281-066	AUTO SERV MECH	
									620.684-014	AUTO MECH, HELP	
									620.281-010	AIR COND MECH	
00226	1	FOREIGN CAR REPAIR		10.00	TRN CTR	NO	NO	-	620.261-010	FOR CAR MECH	N
									620.684-014	AUTO MECH, HELP	
									620.281-026	BRAKE MECH	
									620.281-066	TUNE-UP MECH	

(continued)

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BELH=BELLFLOWER HIGH SCHOOLS
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NLMA=NORWALK-LA MIRADA ADULT SCHOOL
NLMH=NORWALK-LA MIRADA HIGH SCHOOLS
SROP=SOUTHEAST LOS ANGELES COUNTY ROP

DESCRIPTOR: AUTO — Southeast L.A. County R.O.P. (Continued) — DISTRICT: SROP

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH ---- CERRITOS?	4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	O
00227	1	SERVICE STA MECH		10.00	TRN CTR	NO	NO	-	620.281-066	TUNE-UP MECH	N
									620.281-026	BRAKE REPAIRER	
									620.281-034	CARBURETOR MECH	
									620.281-038	FRONT END MECH	

DESCRIPTOR: AUTO — Cerritos College Adult Education — DISTRICT: CCCA

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH ---- CERRITOS?	4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	O
00237	1	KNOW YOUR AUTO		0.00	CER COL	NO	NO	-			N

DESCRIPTOR (AUTO) = Automotive — Cerritos College — DISTRICT: CCCV

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH ---- CERRITOS?	4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	O
00211	4B	AUTO MAIN/OP	A IA 15	3.00	CER COL	NO	-	CPP - ELEC CR CSLB - IA 161 CSLA - IS 100 CPSO - IT 222			N
00257	5B	AUTO ENGINES	AUTO 10	7.00	CER COL	YES*	-	CPP - ELEC CR CSLB - ELEC CR CPSO - IT 336			N
		*IA 15 OR EQUIVALENT									
00258	5B	AUTO ENGINES	AUTO 11	6.00	CER COL	YES*	-	CPP - ELEC CR CSLB - ELEC CR CPSO - IT 336			N
		*IA 15 OR EQUIVALENT									
00259	5	AUTO MACHINE SHOP	AUTO 12	5.00	CER COL	NO	-	NO CREDIT			N
00260	4B	AUTO DIESEL MAIN	AUTO 16	4.00	CER COL	YES*	-	CPP - ELEC CR CSLB - ELEC CR			N
		*IA 15 OR EQUIVALENT									

(continued)

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NLMH=NORWALK-LA MIRADA HIGH SCHOOLS
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DESCRIPTOR: AUTO = Automotive Cerritos College (continued) DISTRICT CCCV

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	O
00261	5B	LUBE-BRK-WHL	AUTO 20	4.00	CER COL	YES*	-	CPP - ELEC CR CSLB - ELEC CR			N
		*IA 15 OR EQUIVALENT									
00262	5B	AUTO ELECTRICITY	AUTO 22	4.00	CER COL	YES*	-	CPP - NO CRED CSLB - NO CRED CSLA - IS 201			N
		*IA 15 OR EQUIVALENT									
00263	5B	AUTO POWER TRAIN	AUTO 25	3.00	CER COL	YES*	-	CPP - ELEC CR CSLB - ELEC CR			N
		*IA 15 OR EQUIVALENT									
00264	5B	AUTO-FUEL-SYSTEMS	AUTO 32	4.00	CER COL	YES*	-	CPP - ELEC CR CSLB - ELEC CR CPSO - IT 339			N
		*IA 15 OR EQUIVALENT									
00265	6B	AUTO TRANS	AUTO 35	5.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR			N
00266	6B	AUTO TUNE UP	AUTO 42.1	4.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR			N
00267	6	EMISSION CONTROL	AUTO 43.1	3.00	CER COL	YES	-	NO CREDIT			N
00268	6	AUTO AIR COND	AUTO 45.1	4.00	CER COL	YES	-	NO CREDIT			N
00269	6B	AUTO SPECIALTY	AUTO 47.1	2.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR			N
00270	6B	AUTO SPECIALTY	AUTO 48	5.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR			N
00271	6B	AUTO SPECIALTY	AUTO 49	4.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR			N
00272	6B	AUTO MANAGEMENT	AUTO 51	3.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR			N

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SROP=SOUTHEAST LOS ANGELES COUNTY ROP

DRAFTING/ARCHITECTURE

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ART25R - 06-01-82 VOCATIONAL COURSE ARTICULATION INFORMATION PAGE 02

DESCRIPTOR: DRAF = Drafting ABC High Schools DISTRICT: ABCH

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	DOT CODE	DOT DESCRIPTION	O
00042	1	ARCHITECTURE I		5.00	ART HS	YES	ARCH 11	-			N
00043	2	ARCHITECTURE II		5.00	ART HS	YES	ARCH 11	-			N
00044	1	DRAFTING I (INTRO) VARIABLE UNITS		2.50	ART HS	NO	NO	-			N
00045	2	DRAFTING II		5.00	ART HS	YES	DRAF 31	-			N
00046	3	DRAFTING III		5.00	ART HS	YES	DRAF 31	-			N
00051	3	DRAFTING, SPEC PRO		5.00	ART HS	YES	NO	-			N
00052	1	ARCH DRAFTING I		5.00	CER HS	YES	ARCH 11	-			N
00053	2	ARCH DRAWING II		5.00	CER HS	YES	ARCH 11	-			N
00054	3	ARCH DRAWING III		5.00	CER HS	YES	ARCH 11	-			N
00057	1	DRAFTING, INTRO TO		2.50	CER HS	NO	NO	-			N
00058	2	DRAFTING, MECH I		5.00	CER HS	YES	DRAF 31	-			N
00059	3	DRAFTING, MECH II		5.00	CER HS	YES	DRAF 32	-			N
00060	1	ARCH DRAWING I		5.00	GAHR HS	NO	ARCH 11	-			N
00061	2	ARCH DRAWING II		5.00	GAHR HS	YES	ARCH 11	-			N
00097	3	ARCH DRAWING III		5.00	GAHR HS	YES	ARCH 11	-			N
00062	1	DRAFTING		5.00	GAHR HS	NO	NO	-			N
00063	2	DRAFTING, ENGINEER		5.00	GAHR HS	YES	NO	-			N
00064	2	DRAFTING, MECHAN		5.00	GAHR HS	YES	DRAF 31	-			N
00065	2	DRAFTING, SHT METL		5.00	GAHR HS	YES	NO	-			N
00098	1	MODL BLDG/MINI CRP		5.00	GAHR HS	NO	NO	-			N

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DISTRICT

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ABCH=ABC HIGH SCHOOLS
BELA=BELLFLOWER ADULT SCHOOL
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DOWH=DOWNEY HIGH SCHOOLS
LROP=LOS ANGELES COUNTY ROP
NLMA=NORWALK-LA MIRADA ADULT SCHOOL
NLMH=NORWALK-LA MIRADA HIGH SCHOOLS
SROP=SOUTHEAST LOS ANGELES COUNTY ROP

DESCRIPTOR: DRAF = Drafting — Bellflower High Schools — DISTRICT: BELH

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	DOT CODE	DOT DESCRIPTION	O
00087	1	DRAFTING FUND		5.00	BEL HS	NO	NO	-			N
00088	1	DRAFTING I		5.00	MAY HS	NO	DRAF 32	-			N
00089	2	DRAFTING II		5.00	MAY HS	YES	ARCH 11	-			N

DESCRIPTOR: DRAF = Drafting — Downey High Schools — DISTRICT: DOWH

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	DOT CODE	DOT DESCRIPTION	O
00090	1	DRAFTING I		5.00	DOW HS	NO	NO	-			N
00091	1	DRAFTING II		5.00	DOW HS	YES	DRAF 31	-			N
00092	2	DRAFTING III		5.00	DOW HS	YES	DRAF 32	-			N
00093	3	DRAFTING IV		5.00	DOW HS	YES	DRAF 50	-			N
00094	1	DRAFTING I		5.00	WAR HS	NO	NO	-			N
00095	1	DRAFTING II		5.00	WAR HS	YES	DRAF 31	-			N
00096	2	DRAFTING III		5.00	WAR HS	YES	DRAF 32	-			N

DESCRIPTOR: DRAF = Drafting — Norwalk-La Mirada High Schools — DISTRICT: NLMH

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	DOT CODE	DOT DESCRIPTION	O
00099	1	GENERAL SHOP		5.00	EL CAM	NO	NO	-			N
00100	1	DRAFTING I	231	5.00	GLENN	NO	NO	-			N
00101	2	DRAFTING II	232	5.00	GLENN	YES	DRAF 32	-			N

(Continued)

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DISTRICT
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DESCRIPTOR: DRAF — Norwalk - La Mirada High Schools (Continued) — DISTRICT: NLMH

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	O
00102	3	DRAFTING ADV	233	5.00	GLENN	YES	DRAF 53	-			N
00212	2	CONST DRAFTING* *THIS IS AN ROP COURSE		10.00	LA MIR	NO *SEE DISTRICT = SROP	*SEE SROP	-			N
00103	1	DRAFTING I	231	5.00	LA MIR	NO	NO	-			N
00104	2	DRAFTING II	232	5.00	LA MIR	YES	DRAF 32	-			N
00108	3	DRAFTING ADV* *FIRST SEMESTER	233	5.00	LA MIR	YES	DRAF 53	-			N
00109	3	DRAFTING ADV* *SECOND SEMESTER	233	5.00	LA MIR	YES	DRAF 57	-			N
00105	3	PROJECT DRAF I	236	5.00	LA MIR	NO	DRAF 31	-			N
00106	3	PROJECT DRAF II	237	5.00	LA MIR	NO	DRAF 32 DRAF 50	-			N
00107	3	PROJECT DRAF ADV	238	5.00	LA MIR	YES	DRAF 32 DRAF 50	-			N
00110	1	DRAFTING I	231	5.00	NOR HS	NO	NO	-			N
00111	2	DRAFTING II	232	5.00	NOR HS	YES	DRAF 31	-			N
00112	3	DRAFTING ADV	233	5.00	NOR HS	YES	ARCH 11	-			N

DESCRIPTOR: DRAF = Drafting — Southeast L.A. County R.O.P. — DISTRICT: SROP

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	O
00113	2	CONST DRAFTING		10.00	LA MIR	NO	DRAF 31 ARCH 11 ARCH 21	-	005.281-014 001.261-010 017.261-018 017.281-018 017.261-034	DRAFTER, STRUC DRAFTER, ARCH DETAILER DETAILER, AST DRAFT, HEAT/VEN	N

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SROP=SOUTHEAST LOS ANGELES COUNTY ROP

ART2SR - 06-01-82 VOCATIONAL COURSE ARTICULATION INFORMATION PAGE 12

DESCRIPTOR (DRAF) = Drafting/Architecture Cerritos College DISTRICT: (CCCV)

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	DOT CODE	DOT DESCRIPTION	O
00076	4B	ARCH ORIENTATION	ARCH 10	2.00	CER COL	NO	-	CPP - ELEC CR CSLB - ELEC CR CPSO - EDES101			N
00077	4B	ARCH DRAWING	ARCH 11	3.00	CER COL	YES	-	CPP -ARC 101* CSLB - ELEC CR CPSO - ARCH231			N
		*ARCH 11 + ARCH 30 = ARC 101									
00078	4B	HIST OF ARCH	ARCH 12	3.00	CER COL	NO	-	CPP - ELEC CR CSLB - ELEC CR CPSO - ARCH317			N
00079	4	BUILDING EQUIP	ARCH 16	3.00	CER COL	NO	-	NO CREDIT			N
00080	6B	BUILDING CODES	ARCH 20	3.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR			N
00081	6B	ARCH DRAWING	ARCH 21	3.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR CPSO - ARCH232			N
00082	6B	ARCH DELINAT	ARCH 30	2.00	CER COL	YES	-	CPP -ARC 101* CSLB - ELEC CR			N
		*ARCH 11 + ARCH 30 = ARC 101									
00083	6B	DRAW AND PLAN	ARCH 31	3.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR			N
00084	6B	BASIC DESIGN	ARCH 32	3.00	CER COL	YES	-	CPP -ARC 101* CSLB - ELEC CR CPSO - EDES201			N
		*ARCH 30 + ARCH 32 = ARC 101									
00085	6B	DRAW AND PLAN	ARCH 41	3.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR CPSO - EDES202			N
00086	6B	DESIGN AND STRUCT	ARCH 42	3.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR CPSO - EDES203			N

(continued)

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4 = BEGINNING CERRITOS COLLEGE
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B = BACCALAUREATE (TRANSFERABLE FOR CREDIT)

DISTRICT

ABCA=ABC ADULT SCHOOL
ABCH=ABC HIGH SCHOOLS
BELA=BELLFLOWER ADULT SCHOOL
BELH=BELLFLOWER HIGH SCHOOLS
CCCA=CERRITOS COLLEGE ADULT EDUCATION
CCCV=CERRITOS COLLEGE VOCATIONAL
DOWA=DOWNEY ADULT SCHOOL
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NLMH=NORWALK-LA MIRADA HIGH SCHOOLS
SROP=SOUTHEAST LOS ANGELES COUNTY ROP

DESCRIPTOR: DRAF Drafting (Continued) Cerritos College DISTRICT: CCCV

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	O
00066	4	BLUEPRINT READING	DRAF 16	2.00	CER COL	NO	-	NO CREDIT			N
00067	4B	FUND OF DRAFTING	DRAF 31	2.00	CER COL	NO	-	CPP - MFE 121 CSLB - IA 141 CSLA - IS 110 CPSO - ET 131			N
00068	4B	MECHANICAL DRAWING	DRAF 32	3.00	CER COL	YES	-	CPP - MFE 122 CSLB - IA 141 CSLA - IS 110 CPSO - ET 151			N
00069	5B	SHEET METAL L/O	DRAF 33	2.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR CSLA - IS 261			N
00070	6B	ELECTRO-MECH DES	DRAF 36	3.00	CER COL	YES	-	CPP - MFE 246 CSLB - ELEC CR CPSO - ET 153			N
00071	5B	GRAPH STAT-STR	DRAF 37	3.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR			N
00072	5B	TECH ILLUS FUND	DRAF 50	2.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR CPSO - IT 245			N
00073	6B	MACH DRAW & DESIGN	DRAF 53	3.00	CER COL	YES	-	CPP - MFE 233 CSLB - ELEC CR CPSO - ET 344			N
00074	6B	TOOL ENGINEER FUND	DRAF 57	3.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR CPSO - MP 321* CPSO - MP 322*			N
		*IF BOTH DRAF 57 & 58 COMPLETD									
00075	6B	TOOL ENGINEER	DRAF 58	3.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR CPSO - MP 321* CPSO - MP 322*			N
		*IF BOTH DRAF 57 & 58 COMPLETD									

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DISTRICT

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SROP=SOUTHEAST LOS ANGELES COUNTY ROP

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ELECTRONICS

DESCRIPTOR: (EL) = Electronics — ABC High Schools — DISTRICT: (ABCH)

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	Q
00274	1	ELEC/TV REPAIR* *THIS IS AN ROP COURSE		10.00	CER HS *SEE DISTRICT = SROP	NO	*SEE SROP	-			N
00125	1	ELECTRONICS I		5.00	CER HS	NO	IA 10	-			N
00126	2	ELECTRONICS II		5.00	CER HS	YES	IA 10	-			N
00127	3	ELECTRONICS III		5.00	CER HS	YES	IA 10	-			N
00128	1	ELECTRONICS, INTRO		5.00	CER HS	NO	IA 10	-			N
00130	1	ELECTRICITY I		5.00	GAHR HS	NO	NO	-			N
00131	1	ELECTRONICS A		5.00	GAHR HS	NO	IA 10	-			N

DESCRIPTOR: (FL) = Electronics — Bellflower Adult School — DISTRICT: (BELA)

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	Q
00135	1	ELECTRONICS, BAS I		0.00	BEL HS	NO	IA 10	-			N

DESCRIPTOR: (EL) = Electronics — Bellflower High Schools — DISTRICT: (BELH)

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	Q
00132	1	ELECTRONICS I		5.00	BEL HS	NO	IA 10	-			N
00133	2	ELECTRONICS II		5.00	BEL HS	YES	IA 10	-			N
00134	3	ELECTRONICS III		5.00	BEL HS	YES	IA 10 EL 10* EL 10.1*	-			N

*AT DISCRETION OF HIGH SCHOOL INSTRUCTOR

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SROP=SOUTHEAST LOS ANGELES COUNTY ROP

DESCRIPTOR: (EL) = Electronics — Downey Adult School — DISTRICT: (DOWA)

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	O
00136	1	ELECTRICITY, BASIC		0.00	WAR HS	NO	NO	-			N
00137	1	ELECTRONICS, BASIC		0.00	WAR HS	NO	NO	-			N

DESCRIPTOR: (EL) = Electronics — Downey High Schools — DISTRICT: (DOWH)

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	O
00138	1	ELECTRONICS I		5.00	DOW HS	NO	IA 10	-			N
00139	2	ELECTRONICS II		5.00	DOW HS	YES	IA 10	-			N
00140	3	ELECTRONICS III		5.00	DOW HS	YES	IA 10	-			N
00141	1	ELECTRONICS I		5.00	WAR HS	NO	NO	-			N
00142	2	ELECTRONICS II		5.00	WAR HS	YES	NO	-			N
00143	3	ELECTRONICS III		5.00	WAR HS	YES	NO	-			N

DESCRIPTOR: (EL) = Electronics — Norwalk- La Mirada Adult School — DISTRICT: (NLMA)

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	O
00144	1	ELECT RAD & TV REP		0.00	NOR AC	NO	UNKNOWN	-			N

DESCRIPTOR: (EL) = Electronics — Norwalk- La Mirada High Schools — DISTRICT: (NLMH)

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	O
00145	1	ELECTRONICS I	241	5.00	GLENN	NO	IA 10	-			N

(continued)

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SROP=SOUTHEAST LOS ANGELES COUNTY ROP

DESCRIPTOR: (EL) = Electronics — Norwalk-La Mirada High Schools (continued) — DISTRICT: (NLMH)

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH: CERRITOS?	ARTICULATION WITH: 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	D
00146	2	ELECTRONICS II	242	5.00	GLENN	YES	IA 10	-			N
00147	3	ELECTRONICS ADV	243	5.00	GLENN	YES	IA 10	-			N
00148	1	ELECTRONICS I	241	5.00	NOR HS	NO	IA 10	-			N
00149	2	ELECTRONICS II	242	5.00	NOR HS	YES	IA 10	-			N
00150	3	ELECTRONICS ADV	243	5.00	NOR HS	YES	IA 10	-			N

DESCRIPTOR: (EL) = Electronics — Southeast L.A. County R.O.P. — DISTRICT: (SROP)

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH: CERRITOS?	ARTICULATION WITH: 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	D
00129	1	ELEC/TV REPAIR		10.00	CER HS	NO	UNKNOWN	-	720.281-010 720.281-018 720.281-010	RADIO REPAIRER TV REPAIRER RAD/TV REP-APPR	N

DESCRIPTOR: (EL) = Electronics — Cerritos College — DISTRICT: (CCCV)

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH: CERRITOS?	ARTICULATION WITH: 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	D
00151	4B	BASIC ELECTRONICS	A IA 10	4.00	CER COL	YES	-	CPP - ELEC CR CSLB - IA 131 CSLA - IS 120 CPSO - IT 337			N
00152	5	CITIZ BAND-2-WAY	EL 05	2.00	CER COL	NO	-	NO CREDIT			N
00153	5B	PRIN ELECTRONICS	EL 10	3.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR CSF - ENG 203 CSLA - IS 120			N

(continued)

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DESCRIPTOR: (EL) = Electronics Cerritos College (continued) DISTRICT: CCCV

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	D
00154	5B	PRIN ELECTR LAB	EL 10.1	2.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR CSF - ENG 203L CSLA - IS 120			N
00155	6B	PRIN ELECTRONICS	EL 20	3.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR CSF - ENG 203 CSLA - IS 220			N
00156	6B	PRIN ELECTR LAB	EL 20.1	1.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR CSF - ENG 203L CSLA - IS 220			N
00157	6B	EL CIRC ANL	EL 30	3.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR CPSO - ET 232			N
00158	6B	EL CIRC ANL LAB	EL 30.1	1.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR			N
00159	6B	ELEC SYSTEMS & APP	EL 31	4.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR			N
00160	6B	AUDIO SYSTEMS	EL 32	3.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR CPSO - ELEC CR			N
00161	6B	RADIO & TV SERVICE	EL 33	3.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR CPSO - ELEC CR			N
00162	6B	DIG CIR-COMP LOG	EL 34	3.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR CPSO - CSC 218 CPSO - ET 334			N
00163	6B	INTRO BIO-MED INST	EL 35	4.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR CPSO - ELEC CR			N

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DESCRIPTOR: (EL) - Electronics (Continued) Cerritos College DISTRICT: (CCCV)

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	DOT CODE	DOT DESCRIPTION	O
00164	6B	ELEC SAFETY	EL 36	2.00	CER COL	YES	-	CPP - ELEC CR CSLB - NO CRED			N
00165	6B	ELEC TESTS & MEAS	EL 38	3.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR CPSO - ET 126			N
00166	6B	ELECTR CIR ANL	EL 40	3.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR CPSO - ET 233			N
00167	6B	ELECTR CIR ANL LAB	EL 40.1	1.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR			N
00168	6B	LINEAR INT CIRC	EL 41	3.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR CPSO - ELEC CR			N
00169	6B	ELECT COMMUNICAT	EL 42	3.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR			N
00170	6B	RADIO-TV SERVICING	EL 43	3.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR			N
00171	6B	INTRO MICROCOMPUT	EL 44	5.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR CPSO - ELEC CR			N
00172	6B	BIO-MED INSTRUM	EL 45	4.00	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR			N
00173	5	ELECTR TRBLSHOOT	EL 46	2.00	CER COL	YES	-	NO CREDIT			N
00174	6	TV SERV TECH ADV	EL 86.1	3.00	CER COL	YES	-	NO CREDIT			N
00175	6	TV SERV TECH ADV	EL 86.2	2.00	CER COL	YES	-	NO CREDIT			N
00176	6	COLOR TELEVISION	EL 87	1.00	CER COL	YES	-	CPSO - ELEC CR CPP - NO CRED CSLB - NO CRED			N

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MACHINE TOOL

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ART25R - 06-01-82 VOCATIONAL COURSE ARTICULATION INFORMATION PAGE 19

DESCRIPTOR: (MT) = Machine Tool ABC High Schools DISTRICT: (ABCH)

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	D O T
00178	1	METAL 1		5.00	ART HS	NO	NO	-			N
00179	1	METAL 2		5.00	ART HS	YES	NO	-			N
00180	2	METAL 3		5.00	ART HS	YES	MT 11	-			N
00181	2	METAL 4		5.00	ART HS	YES	MT 11	-			N
00177	1	METALS, INTRO TO		2.50	ART HS	NO	NO	-			N
00183	2	MACHINE TOOL OPER* *THIS IS AN ROP COURSE		10.00	CER HS *SEE DISTRICT = SROP	NO	*SEE SROP	-			N
00182	1	METALS, INTRO TO		2.50	CER HS	NO	NO	-			N
00188	2	MACHINE TOOL OPER* *THIS IS AN ROP COURSE		10.00	GAHR HS *SEE DISTRICT = SROP	NO	*SEE SROP	-			N
00185	1	METAL 1		5.00	GAHR HS	NO	NO	-			N
00184	1	METALS		2.50	GAHR HS	NO	NO	-			N
00186	1	METALS OCC		5.00	GAHR HS	NO	NO	-			N
00187	2	METALS, VOC		5.00	GAHR HS	YES	MT 11	-			N

DESCRIPTOR: (MT) = Machine Tool Downey High Schools DISTRICT: (DOWH)

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	D O T
00189	1	METALS 1		5.00	DOW HS	NO	NO	-			N
00190	2	METALS, VOC		5.00	DOW HS	YES	MT 11	-			N
00191	1	METALS 1		5.00	WAR HS	NO	NO	-			N
00192	2	METALS II, III		5.00	WAR HS	YES	MT 11	-			N

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ART25R - 06-01-82 VOCATIONAL COURSE ARTICULATION INFORMATION PAGE 20

DESCRIPTOR: MT Machine Tool Norwalk - La Mirada Adult School DISTRICT: NLMA

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	DOT CODE	DOT DESCRIPTION	D
00193	1	MACH SHOP BEG/ADV		0.00	EXCELS	NO	UNKNOWN	-			N

DESCRIPTOR: MT = Machine Tool Norwalk - La Mirada High Schools DISTRICT: NLMH

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	DOT CODE	DOT DESCRIPTION	D
00196	2	MACHINE TOOL OPER* *THIS IS AN ROP COURSE		10.00	GLENN *SEE DISTRICT = SROP	NO	*SEE SROP	-			N
00194	1	METALS 1		5.00	GLENN	NO	NO	-			N
00195	2	METALS 2		5.00	GLENN	YES	MT 11	-			N

DESCRIPTOR: MT = Machine Tool Southeast L.A. County R.O.P. DISTRICT: SROP

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	DOT CODE	DOT DESCRIPTION	D
00197	2	MACHINE TOOL OPER		10.00	CER HS	NO	MT 11 MT 23 MT 24 MT 28, 29	-	603.280-010 606.682-014 600.280-026 604.685-026 605.685-030	TOOL GRINDER DRILL PRESS OP MACHINIST APPR LATHE OP-PROD MILL MACH OP-PR	N
00198	2	MACHINE TOOL OPER		10.00	GAHR HS	NO	MT 11 MT 23 MT 24 MT 28, 29	-	603.280-010 606.682-014 600.280-026 604.685-026 605.685-030	SAME AS ABOVE SAME AS ABOVE SAME AS ABOVE SAME AS ABOVE SAME AS ABOVE	N
00199	2	MACHINE TOOL OPER		10.00	GLENN	NO	MT 11 MT 23 MT 24 MT 28, 29	-	603.280-010 606.682-014 600.280-026 604.685-026 605.685-030	SAME AS ABOVE SAME AS ABOVE SAME AS ABOVE SAME AS ABOVE SAME AS ABOVE	N

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DISTRICT

ABCA=ABC ADULT SCHOOL
ABCH=ABC HIGH SCHOOLS
BELA=BELLFLOWER ADULT SCHOOL
BELH=BELLFLOWER HIGH SCHOOLS
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NLMA=NORWALK-LA MIRADA ADULT SCHOOL
NLMH=NORWALK-LA MIRADA HIGH SCHOOLS
SROP=SOUTHEAST LOS ANGELES COUNTY ROP

DESCRIPTOR: (MT) = Machine Tool Cerritos College DISTRICT: (CCCV)

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	DOT CODE	DOT DESCRIPTION	D
00200	4B	FUND MACHINE PROC	MT 11	2.00	CER COL	NO	-	CPP - MFE 221 CSLB - ELEC CR			N
00201	5B	MACHINE TOOL THEO	MT 21	1.50	CER COL	YES*	-	CPP - ELEC CR CSLB - ELEC CR CPSO - MT 137			N
		*MT 11 OR EQUIVALENT									
00202	5B	LATHE OPERATION	MT 23	0.50	CER COL	YES*	-	CPP - ELEC CR CSLB - ELEC CR CPSO - MP 141			N
		*MT 11 OR EQUIVALENT									
00203	5B	MILL & SHAPER OP	MT 24	0.50	CER COL	YES*	-	CPP - ELEC CR CSLB - ELEC CR CPSO - MP 142			N
		*MT 11 OR EQUIVALENT									
00204	5B	GRINDING	MT 28	0.50	CER COL	YES*	-	CPP - ELEC CR CSLB - ELEC CR CPSO - MP 155			N
		*MT 11 OR EQUIVALENT									
00205	5B	LAYOUT-DRILLING	MT 29	0.50	CER COL	YES*	-	CPP - ELEC CR CSLB - ELEC CR CPSO - MP 151			N
		*MT 11 OR EQUIVALENT									
00206	6B	ADV TOOL TH-MACH	MT 31	1.50	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR			N
00207	6B	ADV TOOL TH-TOOL	MT 32	1.50	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR			N
00208	6B	ADV LATHE OPER	MT 33	0.50	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR CPSO - MP 153			N
00209	6B	ADV MILL-SHPAER OP	MT 34	0.50	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR CPSO - MP 254			N

(continued)

LEV = LEVEL

1 = BEGINNING HIGH SCHOOL, ROP, ADULT SCHOOL
2 = INTERMEDIATE HIGH SCHOOL, ROP, ADULT SCHOOL
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NLMH=NORWALK-LA MIRADA HIGH SCHOOLS
SROP=SOUTHEAST LOS ANGELES COUNTY ROP

DESCRIPTOR: (MT) = Machine Tool Cerritos College (Continued) DISTRICT (CCCV)

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	D O T
00210	68	MACH TOOL SPEC	MT 48	0.50	CER COL	YES	-	CPP - ELEC CR CSLB - ELEC CR			N

-82-

LEV = LEVEL

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SROP=SOUTHEAST LOS ANGELES COUNTY ROP

PLASTICS

101

DESCRIPTOR: PLAS = Plastics — Downey High Schools — DISTRICT: DOWH

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	O
00031	1	PLASTICS I		5.00	DOW HS	YES	NO	-			N
00032	1	PLASTICS II		5.00	DOW HS	YES	PMT 19	-			N
00033	2	PLASTICS III		5.00	DOW HS	YES	IA 12 PMT 19	-			N

DESCRIPTOR: PLAS = Plastics — Norwalk - La Mirada High Schools — DISTRICT: NLMH

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	O
00275	2	PLASTICS PRODUCTN* *THIS IS AN ROP COURSE		10.00	NOR HS *SEE DISTRICT = SROP	NO	*SEE SRJP	-			N
00034	1	PLASTICS I	271	5.00	NOR HS	NO	NO	-			N
00035	1	PLASTICS II	272	5.00	NOR HS	YES	PMT 19	-			N

DESCRIPTOR: PLAS = Plastics — Southeast L.A. County R.O.P. — DISTRICT: SROP

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	D O T CODE	D O T DESCRIPTION	O
00036	2	PLASTICS PRODUCTN		10.00	NOR HS	NO	PMT 14 PMT 19	-	754.381-018 754.684-014 754.684-022 754.484-010 754.684-018 754.684-042	PLAS BENCH MECHN ASSMBLR/GLUER CASTER MOLD LAMINATOR PLAS LAY-UP PER PLAS FAB/REPAIR	

VARIABLE UNITS

-85-

LEV = LEVEL

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NLMH=NORWALK-LA MIRADA HIGH SCHOOLS
SROP=SOUTHEAST LOS ANGELES COUNTY ROP

DESCRIPTOR: PLAS = Plastics Cerritos College DISTRICT CCCV

REC NUM	LEV	NAME OF COURSE	NUMBER	SEM. UNITS	SITE	PREREQ?	ARTICULATION WITH CERRITOS?	ARTICULATION WITH 4-YEAR SCHOOL?	DOT CODE	DOT DESCRIPTION	O
00037	4	PLASTICS TECH I	IA 12	2.00	CER COL	NO	-	NO			N
00038	4	INJECTION MOLDING	PMT 12	1.00	CER COL	NO	-	NO			N
00039	5	EXTRUSION *IA 12 OR EQUIVALENT	PMT 13	3.00	CER COL	YES*	-	NO			N
00040	5	FIBERGLASS I *IA 12 OR EQUIVALENT	PMT 14	1.00	CER COL	YES*	-	NO			N
00041	5	PLASTICS LAB *IA 12 OR EQUIVALENT	PMT 19	0.50	CER COL	YES*	-	NO			N
00116	6	PLASTICS TECH II	PMT 21	2.00	CER COL	YES	-	NO			N
00117	4	MOLDMAKING PLASTIC	PMT 22	1.50	CER COL	NO	-	NO			N
00118	5	HYDRAULICS & PNEUM *IA 12 OR EQUIVALENT	PMT 23	3.00	CER COL	YES*	-	NO			N
00119	6	FIBERGLASS MFG II	PMT 24	2.00	CER COL	YES	-	NO			N
00120	4	PLASTIC MATERIALS *IA 12 OR EQUIVALENT	PMT 25	2.00	CER COL	YES*	-	NO			N
00121	2	PLASTICS PROCESSES *IA 12 OR EQUIVALENT	PMT 26	2.00	CER COL	YES*	-	NO			N
00122	6	PLASTICS TECH III	PMT 31	2.00	CER COL	YES	-	NO			N
00123	6	PLASTICS TECH IV	PMT 41	2.00	CER COL	YES	-	NO			N
00124	5	TOOLING/PLASTICS *IA 12 OR EQUIVALENT	PMT 46	2.00	CER COL	YES*	-	NO			N

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THE

POSTSCRIPT . . .

(APPENDIX)

APPENDIX A

RESULTS OF STATEWIDE SURVEY

Cerritos Community College District

11110 East Alondra Blvd., Norwalk, CA 90650/(213) 860-2451
Serving Artesia, Bellflower, Cerritos, Downey, Hawaiian Gardens, Lakewood, La Mirada, Norwalk.

October 8, 1981

TO: ALL DEANS OF VOCATIONAL EDUCATION
ALL CAREER CENTER COUNSELORS

FROM: RICHARD E. WHITEMAN, PROJECT DIRECTOR

SUBJECT: TRADE AND INDUSTRY ARTICULATION

Cerritos College has received a VEA Subpart 3 Grant to develop a trade and industry articulation model for community colleges, secondary schools, ROP/C's, adult schools, and other colleges.

One of the objectives of the project is to identify previous articulation efforts, methods, or models in the trade and industrial area, specifically in the following areas:

1. Auto Body
2. Auto Mechanics
3. Drafting
4. Electronics
5. Machinists
6. Plastics

We are contacting you to see if you have developed an articulation method, model, or effort in one or more of the above areas.

Please fill out and return the attached form by October 22, 1981. We have enclosed a return self-addressed stamped envelop for your convenience.

Thank you for your prompt response.

Sincerely,

Richard E. Whiteman
Dean of Vocational Education
Cerritos College

REW:bgs
Enclosure: TRADE AND INDUSTRY ARTICULATION SURVEY

Board of Trustees: Louise Hastings, President; Louis Banas, Jr., Vice President; Hazel Scotto. Secretary; Harold T. Tredway, Richard M. Goul, Katie Nordbak, Chuck Fuentes, Members; Dr. Wilford Michael, President/Superintendent; Stuart Hayden, Student Member of the Board.

TRADE AND INDUSTRY ARTICULATION SURVEY

PLEASE FILL OUT AND RETURN BY OCTOBER 22, 1981

YES, we have developed an articulation method/model/effort in the following area/s (check all those which apply):

Auto Body _____

Auto Mechanics _____

Drafting _____

Electronics _____

Machinists _____

Plastics _____

CONTACT PERSON FOR FURTHER INFORMATION

NAME: _____

TITLE: _____

COLLEGE: _____

ADDRESS: _____

_____

PHONE: _____

NO, we have not developed an articulation method/model/effort in any of the above areas, but keep us apprised of your effort:

NAME OF PERSON RETURNING THIS FORM:

NAME: _____

TITLE: _____

COLLEGE: _____

ADDRESS: _____

_____

PHONE: _____

COMMENTS: _____

PLEASE RETURN THIS FORM, WHETHER YOUR ANSWER IS YES OR NO, TO THE FOLLOWING:

Mrs. Betsy Stewart, Project Coordinator
Cerritos College
11110 East Alondra Boulevard
Norwalk, CA 90650

A return self-addressed stamped envelop is enclosed for your convience.

THANK YOU.

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10/8/81

TRADE AND INDUSTRY ARTICULATION PROJECT

RESULTS OF STATEWIDE COMMUNITY COLLEGE ARTICULATION SURVEY

Conducted October, 1981

All 107 California Community Colleges were sent a letter and survey.

Eighty-two (82) Community Colleges responded to the survey (77% response rate).

Twelve (12) Community Colleges or 15% of those responding, indicated they had developed an articulation method/model/effort in at least one trade and industry area.

Of these twelve, nine (9) Community Colleges gave actual CREDIT or UNITS of CREDIT in at least one trade and industry area. Three (3) gave no credit or units of credit but did give ADVANCED STANDING. They are listed behind this.

COMMENTS

The survey was designed to be simple and quick for administrators to fill out. Any college returning the survey with any areas checked to indicate they had an articulation method/model/effort was personally contacted by the Project Coordinator to gather more specific information.

Twenty-two (22) colleges were personally contacted. Those twelve included in the above results were those colleges who had a specific, consistent, across-the-board articulation method/model/effort, and, in some cases, even had formal written articulation agreements.

Those colleges not included in the above results were those which had indicated they did, indeed have an articulation method but they were determined to have articulation with post secondary institution instead of with secondary institutions such as high schools, ROP/C's, and/or adult schools.

Also not included in the above results were those colleges who stated that they had informal articulation agreements or "understandings" with their local high schools or ROP/C's which came about through monthly "morning breakfast meetings of the vocational directors or through the ROP Coordinating Councils." These were more on a one-to-one student-counselor basis.

Other colleges indicated they had an articulation agreement developed through their RAVE Councils but most were an intent to articulate, not an actual articulation effort.

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BGS 11/5/81

TRADE AND INDUSTRY ARTICULATION SURVEY RESULTS

COLLEGE	ARTICULATED SUBJECT AREA						* SUM-MARY	COMMENTS
	AB	AUTO	DRAF	EL	MACH	PLAS		
American River				X			C/AS	A total of 8 units for EL 30 (5 units) and EL 51 (3 units) if pass college final test. Advanced standing given also.
Antelope Valley		X					C/AS	3 units of credit for Auto 50A and B (college) if complete Auto at High School and pass college verbal and written test. Advance into Auto 66A (college)
Cabrillo College			X	X			C/AS	Agreement with ROP people. Can have either high school or college credit. Entitled to advanced placement.
Chabot College		X	X	X	X		AS	No units of credit given. Advanced standing only after filling out a waiver form.
Cuyamaca		X					C/AS	Student may waive Auto Tech 99; get credit by examination.
Evergreen Valley		X					C/AS	Formal Agreement. Credit for college Auto Courses 104 and/or Auto 103. Additional provisions for waiver of requirements as well as challenging class and passing test. Agreement Attached.
Fullerton College		X	X	X	X		AS	Advanced placement only. Example, if two years of Auto Mechanics in high school, student doesn't have to take Auto 130; goes into advanced courses. No units of credit given.
Indian Valley	X	X					AS	Advanced standing. If pass test, advance into major's classes. No units of credit given.
Mt. San Antonio				X	X		C/AS	Formal Agreement. Advanced standing or credit by examination. No units of credit given for advanced standing. Agreement Attached.
Rio Hondo	X	X	X	X	X		C/AS	Advanced standing. Credit by examination.
San Bernardino Valley		X		X	X		C/AS	Formal Agreement. Credit by examination. Agreement Attached.
San Jose City					X		C/AS	Formal Agreement. Advanced standing. Subject matter credit is given in fulfillment of the A.A. or Certificate of Achievement but no college units given. Agreement Attached.

BGS: 11/5/81 *C/AS = Credit / Advanced Standing AS = Advanced Standing only

APPENDIX B

MINUTES OF STEERING COMMITTEE MEETING

TRADE AND INDUSTRY ARTICULATION PROJECT

MINUTES OF STEERING COMMITTEE MEETING

Wednesday, December 2, 1981

The first meeting of the Trade and Industry Articulation Project Steering Committee was called to order by Project Director Richard E. Whiteman at 9:20 a.m. in the Board Room of Cerritos College following a continental breakfast. Members of the Steering Committee present were as follows:

+ Georgette Arnold, Program Specialist, Bellflower U.S.D. (for Rogers Lindley)
+ Bill Boakes, Specialist, Program Evaluation and Approval, Chancellor's Office
+ Clint Brown, Assistant Superintendent, Norwalk-La Mirada Unified School District
+ Bedal Diaz, Associate Dean of Technology, Cerritos College
+ John Didion, Special Projects Writer, Cerritos College
+ Jack Elder, Director, Norwalk-La Mirada Adult School
+ Trish Evans, Field Representative, Southeast Los Angeles County ROP
+ Walter Gembica, Consultant, Career Education, Office of the Los Angeles County Superintendent of Schools (for Chris Chialtas)
+ Fred Hershner, Job Placement Counselor, Downey Adult School
+ Ed Hokama, Assistant Manager, Norwalk Employment Development Department (for Don Pool)
+ Fran Newman, Associate Dean of Counseling, Cerritos College
+ Betsy Stewart, VEA Project Assistant, Cerritos College
+ Chester Sutton, Principal, Downey Adult School
+ Judy Satterfield, Assistant Principal, ABC Adult School
+ Richard Whiteman, Dean of Vocational Education, Cerritos College

Mr. Whiteman stated that the purpose of the Steering Committee is to provide support for the Trade and Industry Articulation project and to help make it work. He reviewed the agenda and said one of the main tasks for today would be to set up members of an Advisory Committee mandated by the project, establish a date for that first meeting, and review the instructors who teach in the articulated subject areas.

A packet of material was presented to those in attendance. The packet contained the following items:

+ Subject Area Descriptor Codes
+ Definition of Articulation/Goal of Project
+ Objectives of the Project
+ Backup Material Outlining Objectives and Activities
+ Deliverers of Education Involved in the Project

+ Tentative List of Advisory Committee Members
+ Instructors in Six Articulated Subject Areas
+ Sample Articulation Form
+ Sample Articulation Form--Automotive
+ Results of Statewide Community College Articulation Survey
+ Cerritos College Policy Regarding Veysey Program
+ Cerritos College Policy Regarding Credit by Examination
+ Backup Information Regarding Hart Bill
+ Cerritos College Articulation Agreement with Cal Poly-Pomona
+ Cerritos College Articulation Agreement with Cal State-Fullerton
+ Cerritos College Articulation Agreement with Cal State-Long Beach

I. DEMONSTRATION OF CURRENT INVENTORY OF CLASSES

Mr. Whiteman called the group's attention to the computerized one-page listing of 104 descriptors or subject areas which are in the Central Class information computer bank. Dr. Boakes "asked" the computer to retrieve information in several descriptor areas including auto body, zoology, etc. The student or user can easily find out what courses are currently being offered where, the time offered, and the school district and site. This inventory of classes will be utilized for the Trade and Industry Articulation Project providing basic information in the six areas in which articulation will be attempted.

In response to questions, Mrs. Stewart replied that the Central Class Information is available on computer terminal to counselors not only in Cerritos College but to all the school districts as well.

II. GOAL/OBJECTIVES/ACTIVITIES OF THE TRADE AND INDUSTRY ARTICULATION PROJECT

A. GOAL

Using the overhead projector, Mr. Whiteman said the goal of the project is to provide articulation in the following six subject areas: autobody, automotive, electronics, drafting, machine tool, and plastics. He highlighted the following definition of articulation:

"Articulation is generally considered as a systematic process that will permit students to move from one course, program, or educational level to the next without loss of time or resources. A guiding principle of articulation is that no student should be required to repeat the same course content for which credit was received."

B. OBJECTIVES

Using the overhead, the five objectives of the project were displayed:

1. Identify previous efforts toward articulated curricula
2. Collect, develop, and disseminate materials
3. Conduct two regional workshops

4. Develop a plan for change in upward mobility for students

5. Promote sex fairness

C. ACTIVITIES

Backup material was included in the packet spelling out in detail the activities designed to accomplish each objective.

III. DELIVERERS OF EDUCATION INVOLVED

The following districts will be involved in the Trade and Industry Articulation Project:

+ ABC Unified School District
+ Bellflower Unified School District
+ Downey Unified School District
+ Norwalk-La Mirada Unified School District
+ Cerritos Community College
+ Surrounding Universities/Colleges

Thirteen area high schools (including continuation schools), two ROP's, four adult schools, and Cerritos College will be directly involved in the articulation project. The four-year insitutions will be involved based on articulation information already available at Cerritos College.

IV. ADVISORY COMMITTEE MEMBERS

A tentative list of Advisory Committee membership was displayed on the overhead. Steering Committee members were asked to add or delete names or change existing ones. Mr. Gemibca said he would ask Dr. Robert Soltys for the names of a business representative in each of the six articulated areas to serve on the advisory committee.

It was agreed that we need students as members of the advisory committee since they are the ones articulating. It was the consensus that the students be from the higher level since they would have already had the experience of going through the system. Mr. Diaz will suggest the names of students.

Ms. Evans said she had been assigned to the Advisory Committee by Doc Holiday to represent the Southeast Los Angeles County ROP.

Mr. Sutton said he would call with the names of suggested representatives from the Downey Unified School District.

THE DATE FOR THE FIRST ADVISORY COMMITTEE MEETING WAS SET FOR WEDNESDAY, JANUARY 13, 1982, FROM 1 to 3 p.m. IN THE CERRITOS COLLEGE BOARD ROOM.

V. SAMPLE ARTICULATION FORM

A copy of the sample articulation form was projected on the overhead and the column titles were explained. Then a sample form filled out for the AUTOMOTIVE

subject areas was discussed. The four-page sample contained the course titles of ALL the automotive courses taught at each district, including the exact site of the course, and, in the case of Cerritos College, the level of the course (beginning or advanced) and whether it was considered Baccalaureate (B) which meant transferrable. If the Cerritos College course were Baccalaureate, then the 4-year college course to which the Cerritos College course articulated was stated or whether it was "elective" or "no credit".

Mrs. Stewart explained that the districts would have to fill out the level of the class (beginning or advanced) and confirm which DOT numbers or job occupations to which the course taught. The district instructors, together with the instructors from Cerritos College, would have to determine whether or not that class articulated with Cerritos College.

Mr. Brown stated that in the Norwalk-La Mirada High Schools, the Auto 1 class articulated with the Auto 2 class which artiuclated with the ROP class, which would, hopefully, articulate with the Cerritos College class. Mrs. Satterfield suggested that perhaps we could add to the form additional columns indicating whether a high school class articulated with another high school class, an adult school class, an ROP class, as well as a Cerritos College class. Or, as an alternative, it was suggested we expand the "prerequisite" column and state vocational prerequisites.

VI. INSTRUCTORS IN ARTICULATED AREAS

A list of all the high school, adult schools, ROP, and Cerritos College instructors in each of the six articulated areas was presented on the overhead as well as included in the packet. Steering Committee members deleted names where they were not applicable and added names which were left off the list. A copy of the revised list is attached.

VII. MEETING DATE FOR INSTRUCTOR'S CONFERENCE

Much discussion centered around when a conference with the instructors could be held. Concern was expressed that no money was available for release time for instructors nor were funds available for subs. The group felt a "carrot" would need to be offered to "coax" them to attend. Several persons suggested a note from the superintendent explaining the importance of the project might be appropriate.

THE FINAL CONSENSUS WAS THAT SINCE EACH DISTRICT IS DIFFERENT, THE CERRITOS COLLEGE INSTRUCTORS WOULD MEET WITH THE DISTRICT TEACHERS FROM EACH HIGH SCHOOL, ROP, AND ADULT SCHOOL COLLECTIVELY. In other words, the Cerritos College drafting teachers, for example, would meet with all the ABC Unified drafting instructors collectively; then with the Norwalk-La Mirada Unified drafting instructors, etc.

Mrs. Satterfield suggested this might be done in conjunction with minimum day at the districts when the teachers are present but the students are not. District representatives will let Mrs. Stewart know when the minimum days are scheduled.

Mr. Whiteman said we would put together a packet for each district teacher explaining what we are trying to articulate and that this is only the beginning. We will include a copy of Cerritos College's course outlines for the beginning classes in each articulated subject area.

Dr. Boakes suggested that perhaps we concentrate in only one or two subject areas.

VIII. EXISTING INSTRUMENTS

A. VEYSEY BILL

Mr. Whiteman pointed out that under the Veysey Program, Cerritos College and neighboring high schools offer a program whereby special high school students may enroll in Cerritos College classes and receive either high school or college credit. He indicated we had many persons enrolled under this program.

B. HART BILL

A copy of the highlights of AB 3408 as modified by AB 65, commonly known as the Hart Bill, was included in the packet. Mrs. Stewart commented that as a result of the statewide survey, one respondent stated that one ramification of the emphasis on proficiency standards was the decline of students taking vocational classes at the high school and the high school's increased dependence (at least in that district) on the community college to teach the vocational classes.

C. ARTICULATION INSTRUMENT WITH FOUR-YEAR INSTITUTIONS

Copies of articulation agreements with the following four-year institutions (only those pages pertaining to the six articulated subject areas) were included in the packet of information:

1. California State Polytechnic University, Pomona
2. California State University, Long Beach
3. California State University, Fullerton

D. CHAR

Mr. Whiteman explained that a previous articulation attempt, CHAR, an acronym for College, High Schools, Adult Schools, and Regional Occupational Programs provided a good base for this project, but, due to lack of funding and the bulkiness of CHAR, it never became fully operational.

E. CREDIT BY EXAMINATION POLICY

A copy of Cerritos College Credit by Examination policy was attached to the agenda. Mrs. Stewart reported that many colleges she contaced in the statewide survey allowed credit by examination in their existing articulation agreements. Cerritos College may grant credit by examination "for proficiency previously accomplished in other than an accredited institution, for experience, study, travel, or for formal service-connected courses essentially equivalent to a a course for which credit is being requested." (underscoring added)

IX. RESULTS OF STATEWIDE SURVEY

Mrs. Stewart reported that all 107 community colleges were sent a letter and a one-page survey form asking whether they had developed an articulation method/model/effort in any of the six areas In all, 82 colleges responded to the survey (77% response rate). Twelve (12) community colleges indicated they had developed an articulation method/model/effort in at least one of the six trade and industry areas. Nine gave actual credit or units of credit while three gave no credits or units of credit but did give advanced standing. A list of the 12 colleges and the areas in which they had articulation was attached in the packet of information. Four (4) colleges had formal articulation agreements. Copies of those were also attached.

Mrs. Stewart reported that when personally contacting each college which stated they had some form of articulation, one college counselor in particular (from Fullerton College), made the following comment:

"Our feeder high schools include people with whom we have worked, discussed curriculum, and set up a complementary program. If I were doing it all over again, I would meet with each instructor within each division to establish a baseline as to what each student needs at every level."

X. ADJOURNMENT

Meeting adjourned at 11:15 a.m. Those who wished to stay, enjoyed lunch in the College's French restaurant.

FIRST MEETING OF THE ADVISORY COMMITTEE WILL BE WEDNESDAY, JANUARY 13, 1982, FROM 1 to 3 p.m. in the CERRITOS COLLEGE BOARD ROOM. An agenda will be mailed later.

Betsy Stewart, Project Coordinator
December 14, 1981

APPENDIX C

MINUTES OF ADVISORY COMMITTEE MEETING

TRADE AND INDUSTRY ARTICULATION PROJECT

MINUTES OF ADVISORY COMMITTEE MEETING

Wednesday, January 13, 1982

The first meeting of the Trade and Industry Articulation Project ADVISORY COMMITTEE was called to order by Project Director Richard E. Whiteman at 1:15 p.m. Wednesday, January 13, 1982, in the Board Room of Cerritos College.

I. INTRODUCTION OF MEMBERS

Members of the Advisory Committee present were as follows:

+ Keith Adams, Assistant Dean of Vocational Education, Cerritos College
+ Joe Aguerrebere, Jr., Staff Administrator, Downey High School
+ Georgette Arnold, Program Specialist, Bellflower Unified School District
+ Charles Brewer, Jr., President, C. Brewer Company (Plastics)
+ Clint Brown, Assistant Superintendent, Norwalk-La Mirada U.S.D.
+ Chris Chialtas, Administrator, Career and Vocational Education, L.A. County Schools
+ Bedal Diaz, Associate Dean of Technology, Cerritos College
+ John Didion, Special Projects Writer, Cerritos College
+ Vera Eckles, Specialist, Wo/Man's Center, Cerritos College
+ Karl Eisbrenner, Cerritos College Automotive Student
+ Trish Evans, Field Representative, Southeast Los Angeles County ROP
+ Mike Fisher, Coordinator, Los Angeles County ROP
+ Andrew Granillo, Cerritos College Electronics Student
+ Ed Hengler, Assistant Director, Norwalk-La Mirada Adult School
+ Fred Hershner, Job Placement Counselor, Downey Adult School
+ Bob Hughlett, Coordinator, Handicapped Students, Cerritos College
+ Jack Leighton, Manufacturing Services Manager, Anzon Company, Inc. (Machine Tool)
+ Rogers Lindley, Principal, Bellflower Adult School
+ Fran Newman, Associate Dean of Counseling, Cerritos College
+ Roy Okimoto, Owner, Okimoto's Automotive Service (Automotive)
+ Don Pool, Manager, Norwalk Employment Development Department
+ Jack Profitt, Coordinator, Vocational Education, ABC Unified School District
+ Willard Redfern, Program Coordinator, ABC Adult School
+ Andrew Rodenbucher, Superintendent, Hughes Aircraft Company (Electronics)
+ Phil Rodriquez, Coordinator, EOPS, Cerritos College
+ Bob Soltys, Consultant, Career, Industrial Education, L.A. County Schools
+ Betsy Stewart, Project Coordinator, Cerritos College
+ Chester Sutton, Principal, Downey Adult School

+ William Tushar, Tool Design Engineer, McDonnell Douglas Corporation (Drafting)
+ Karen Weiss, Cerritos College Drafting Student
+ Richard Whiteman, Dean of Vocational Education, Cerritos College

Members of the Advisory Committee unable to attend were as follows:

+ William Boakes, Specialist, Chancellor's Office, California Community Colleges
+ Mervyn Nyenhuis, Owner, Bellwood Auto Body Service, Inc. (Auto Body)
+ Judy Satterfield, Assistant Director, ABC Adult School
+ Teresa Shuck, Assistant Principal, Warren High School

II. REVIEW OF STEERING COMMITTEE MEETING MINUTES

Minutes of the Steering Committee Meeting of Wednesday, December 2, 1981, had been mailed with the agenda to all members of the Advisory Committee. Mr. Whiteman highligted the following from those minutes:

A. GOAL OF PROJECT

The goal of the project is to provide articulation in the following six subject areas: auto body, automotive, electronics, drafting, machine tool, and plastics. Mr. Whiteman re-stated the following definition of articulation:

"Articulation is generally considered as a systematic process that will permit students to move from one course, program, or education level to the next without loss of time or resources. A guiding principle of articulation is that no student should be required to repeat the same course content for which credit was received."

B. DELIVERERS OF EDUCATION

The following districts are involved in the articulation project:

ABC Unified School District

Bellflower Unified School District

Downey Unified School District

Norwalk-La Mirada Unified School District

Cerritos Community College

The above districts include thirteen area high schools (public), two regional occupational programs (Southeast Los Angeles County ROP and Los Angeles County ROP), four adult schools, and Cerritos College.

III. SAMPLE ARTICULATION AGREEMENT FROM STATE OF MARYLAND

Mr. Whiteman called attention to the "Final Reports" published in 1977 involving articulation agreements in both electronics and drafting between a Maryland community college (Catonsville Community College) and Baltimore County high schools and vocational schools (similar to our regional occupational programs).

The reports not only showed that the college had agreed to grant college credit to the high school or vocational technical school student, but listed the articulated courses and areas and laboratory experiences in both drafting and electronics. The reports highlighted the procedure to implement the articulation agreement, supplied a sample letter of articulation certification, suggested follow-up procedures, and provided a sample form for the student evaluation. All of the sample information is included in our instructor packets of information.

Mr. Whiteman called attention to the areas of competency and remarked that "competency is the key to the placement...If the student has competencies in these areas, we want to zero in on competencies."

IV. INPUT REGARDING WOMEN, HANDICAPPED, AND DISADVANTAGED

Mr. Whiteman said we are required by the State of California to involve many groups on the Advisory Committee including handicapped, disadvantaged, women, and others to make it a total community project. In fact, one of the objectives of the project is to develop a plan for change which will have statewide impact in the upward mobility for students and to promote sex fairness.

A. WOMEN

Vera Eckles, Women's Program Specialist at Cerritos College, discussed careers with a future for women and said, "Our number-one job is that we have to expand women's thinking." She called attention to a local project that told exactly what, for example, an automotive mechanic is, the preparation and training required, what a job holder has to be able to do, and the starting pay. She stated, "Women are going into blue collar jobs because of the money. We need to let women know there are opportunities and what the salary is, ..."

Mrs. Eckles emphasized we should start at the high school level to condition high school students to go into these vocational education areas.

B. HANDICAPPED

Mr. Bob Hughlett, Coordinator of the Cerritos College handicapped student's program, said the articulation project is of vital interest to the handicapped students in general. He stated that approximately 75% are supported by the Department of Rehabilitation and the pressure or emphasis is to complete a training program as quickly as possible. He said such an articulation project would expedite the training program.

C. DISADVANTAGED

Mr. Phil Rodriquez, Cerritos College Coordinator for EOPS (Extended Opportunity Programs and Services) explained that EOPS works with students at the low income/poverty level, those who are generally less prepared, need financial assistance, and some who need developmental skills, writing skills, tutorial assistance, etc. He said this articulation project will bring together the state and federal agencies, public schools, businesses, etc. He stated that 60% - 70% of the students on financial aid are taking vocational classes and 70% to 80% of those graduating are vocational majors. He added, "This type of articulation is certainly needed...We need to expand our service area."

V. ASSIGNMENTS TO SET UP INSTRUCTOR MEETINGS

Mr. Whiteman explained that the Cerritos College instructors will be meeting with the instructors from each deliverer in the six articulated subject areas. The purpose of the meetings will be to provide the opportunity for the teachers to meet and get to know one another and to develop a disciplined curriculum in a cluster by reviewing and comparing and revising, if necessary, course outlines.

He said he understood the problem of trying to get high school/ROP/adult school teachers release time; whereas, at the college, instructor's hours vary day to day and it would be easier to get community college instructors to meet out of the individual district offices.

It was the consensus to set up meetings during the high school district's minimum days, if possible. The following tentative dates were set:

Bellflower U.S.D	February 1 --	Mrs. Georgette Arnold, Program Specialist, will coordinate the meeting
Downey U.S.D.	January 26 --	Mr. Joe Aguerrebere, Staff Administrator, will coordinate the meeting
Norwalk-La Mirada U.S.D	January 29 --	Mr. Clint Brown, Assistant Superintendent, will coordinate the meeting
ABC U.S.D.	?	--Mr. Willard Redfern, Program Coordinator, ABC Adult School, will communicate with Jack Profitt, Coordinator for Vocational Education in the high schools, who will set the date and coordinate the meeting

Mr. Whiteman stated that we are more concerned with articulation from the high school/ROP/adult school levels to Cerritos College at this time than we are with articulation from Cerritos College to the four-year schools, although that information is included on the forms.

VI. REVIEW OF ARTICULATED AREAS

A. ELECTRONICS

Mr. Whiteman distributed copies of a "Program of Study" for Electronics Technician, Automotive Technology (three options), and Automotive Mechanical Repair Technology which Cerritos College Counseling uses to inform students as to required courses, units, and prerequisites.

Mr. Don Pool, Manager, Norwalk Employment Development Department, mentioned the discrepancy between the "nice to have" requirements and what a student absolutely "has to have"; in other words, the minimum prerequisite requirements. He used as an example the recent CWETA Cerritos College-Bechtel (and others) program where many of the applicants did not have the "normal high school preparation". He called attention to the need ("nice to have") for electronics, physics, and two years of algebra on the sheet for the Electronics Technician "program of study" and wondered if all was absolutely necessary.

Mr. Mke Fisher, Coordinator for the Los Angeles County ROP, added that a student just looking at the sheet alone without a counselor's help could be deterred by all the "nice to have" prerequisites.

Dr. Fran Newman, Associate Dean of Counseling, Cerritos College, said she welcomed the comments and asked Mr. Diaz to respond.

Mr. Bedal Diz, Associate Dean, Technology Division, Cerritos College, recommended that we remove "normal high school preparation of electronics, physics, and two years of algebra" from the Electronics Technician's "program of study" sheet.

Dr. Chris Chialtas, Administrator of Career and Vocational Education for Los Angeles County Schools, added that more than just the sequencing of courses is involved. He stated, "We need career guidance regarding evolving career interests." He added, "If we could intervene early enough, if we know what the interest looks like early enough, we could help guide and counsel that student."

Mr. Andrew Rodenbucher, Superintednent, Hughes Aircraft Company, said Hughes still tests applicants no matter where they come from. He complained that students come up with "too many specialties" and industry can't use them. He stated he would like to see a more broad education--he would like to see employees know how to write, etc.

Mr. Andrew Granillo, an advanced Cerritos College electronics student, said he thought articulation is a good form of motivation for the high school student. He wondered, however, if the high school really does have the facility, equipment, lab hours, or quality of instructor the college has. He stated that if the high school and college can get together on courses and if the quality is there, he thinks articulation is great. He thought the high school class in electronics could definitely prepare the student beyond IA 10 (Basic Electronics) and that it would articulate with IA 10.

B. DRAFTING

Before getting the input of the committee members, Mr. Whiteman said Cerritos College is exploring CAD--Computer Assisted Drafting or Computer Assisted Design. He said the typical drafting machine is going out and the drafts-person of the future will sit at a keyboard and make drawings. In fact, he saw recently where the person was just talking to the keyboard and it was doing the work.

Mr. William Tushar, Tool Design Engineer from McDonnell Douglas Corporation, said that all of industry would like to get the best possible pool of candidates as quickly as possible. The high schools and junior highs set up students for community colleges and industry. He said one pet peeve of his is the lack of some technical coordinated class along with some mechanical technical background--i.e. making a model, drilling a hole, etc. He stated that he liked the Maryland sample articulation agreement. He indicated when the students are finished with the high school classes, they could move on through exam or through their past performance. He especially thought AED 102, Engineering Drawing II (4 credits) in the Maryland sample was very good.

Ms. Karen Weiss, an advanced Cerritos College drafting student, said she did not take any technology courses in high school. She said she needed more experience in other things instead of just drawing. She indicated she needed more practical experience.

Mrs. Eckles said we have recognized the problem of women not having background in non-traditional careers. She stated that CG 6, Counseling and Guidance 6, introduces women to different non-traditional careers like welding, etc.

Mr. Whiteman added that he had been told that women do a better job than men on CAD.

Mr. Tushar emphasized that a big prerequisite for drafting is a geometry background.

Mr. Fisher suggested a Mobile Career Education Center available going around to schools.

Mr. Charles Brewer, Jr., President of C. Brewer Company, said 30% of the engineers coming out of college don't know about plastics and he would like to see the plastics courses made more available to engineers at the high school or college level.

C. AUTOMOTIVE

Mr. Roy Okimoto, Owner of Okimoto's Automotive Service, complained that automobile repair is the biggest industry we have but students don't treat automotive classes seriously but more like a "hobby shop". He thought articulation would be helpful if we had a set procedure by which the student was trained step by step. He emphasized the need for students to know how to read schematics and asked that the schools teach more schematic reading.

Dr. Chialtas re-emphasized that what we need is a competency-based curriculum, not merely an agreement.

Mr. Fisher suggested that articulation with the College could lend dignity to the automotive program.

Mr. Brown said that every person entering the world of work will re-train themselves three to four times. He said, "We can't motivate kids to learn... Why should a student be forced to repeat a basic course in electronics, etc." He emphasized the need for instructors to be constantly meeting to provide continuity. He added, "A large percentage of our students will not make it." He also suggested that industry has just as much obligation to come over and get with Cerritos College people regarding curriculum.

Mr. Brewer said he has been trying to get an engineer in four years or a journeyman plastics person in four years. He added he ends up training them himself.

Dr. Robert Soltys, Consultant, Career, Industrial Education, Los Angeles County Schools, stated, "Many people in this community don't know what a sweetheart Cerritos College is..."

Mr. Karl Eisbrenner, an advanced automotive Cerritos College student, said he was definitely in favor of articulation. He stated he went to a private high school that had no automotive classes. He added that he learned a lot on his own, read magazines, etc. He suggested that some lax attitude exists. He said students learn by fixing or working on their own cars. He added there should be some sort of book learning. He said that having to take IA 15, Autmotive Maintenance and Operation, delayed him. He also added he was in favor of some sort of entry exam.

D. AUTO BODY

The auto body representative to the Advisory Committee was unable to attend.

E. MACHINE TOOL

Mr. Jack Leighton, Manufacturing Services Manager, Anzon Company, Inc., said that what high school students get out of machine shop classes is not too practical from an industry standpoint. He said they need more algebra, geometry, and trigonometry. He stated that when he worked for Hughes, they had an apprenticeship program which gave employees classroom training.

Mr. Leighton added, "I think Cerritos College is doing a good job. I think articulation is great because I have had employees come to Cerritos and not been given credit for what they know or what they learned some place else."

He stressed that machinists need to know how to read blueprints. He stated this was especially important for the following occupations: tool and die maker, mold maker, machinist. He said that with a test, high school students should have the opportunity to have their work applied to their college work.

Mr. Brown asked if a person returns to college for training, can they be certified as having skills. Mr. Whiteman stated that Cerritos College does have a credit by examination policy, but it does not apply to students coming directly out of high school. It is more for skills acquired in "other than an accredited institution, for experience, study, travel, etc."

Mr. Fisher suggested that the ROP's, high schools, and Cerritos College have the same articulated advisory committee.

Mr. Pool said articulation is "coordination" and another word for "linkage" and said it will be this committee's responsibility to provide that. Mrs. Stewart added that this articulation project will provide a model for the State of California and that the results of the project will be disseminated to all 107 community colleges.

F. PLASTICS

Mr. Brewer, President, C. Brewer Company, representing plastics, made several comments regarding plastics under the Drafting and Automotive portion of these minutes.

In addition, Mr. Brewer asked if we would be willing to ask National Tool and Die to set up a curriculum which could articulate from the high school to the college level. Mr. Whiteman said we would welcome such a curriculum.

VII. ADJOURNMENT

The meeting adjourned promptly at 3:00 p.m.

The next meeting will be called on an as-needed basis.

B. Stewart
2/19/82

APPENDIX D

STUDENT PREDICTIONS

Cerritos Community College District

11110 East Alondra Blvd., Norwalk, CA 90650/(213) 860-2451
Serving Artesia, Bellflower, Cerritos, Downey, Hawaiian Gardens, Lakewood, La Mirada, Norwalk.

March 25, 1982

Dear Instructor:

We are doing a presentation at the statewide Vocational Education Conference the end of April regarding the Trade and Industry Articulation Project with which you are involved. We need some statistical data to present.

As an instructor in one of the six articulated areas, we need your best "guesstimate" as to how many of the A or B students in your class/es plan to attend Cerritos College within the next two years. (This may be obtained by simply asking students in your class/es who plans to attend Cerritos College and take coursework in your subject area. You would have to judge as to which of these students are likely to receive an A or B grade from you at the end of this semester.) Note: the students do not necessarily have to be seniors.

Please note that we are asking only for an estimate to combine with all other estimates from other districts to arrive at a "ballpark" figure. This will be used to predict the number of future students requesting credit by articulation. Your answers will be combined with others and will remain strictly confidential. They will be used only for statistical purposes.

Please fill out the attached form and return it in the postage-paid return envelop. We need your answer by April 2, 1982.

Thank you again for your cooperation.

Sincerely,

Richard E. Whiteman
Project Director

bgs
Attachment: Survey Form and Return Envelop

Board of Trustees: Louis Banas Jr., President; Richard M. Goul, Vice President; Harold T. Tredway, Secretary; Robert Epple, Katie Nordbak, Hazel M. Scotto, Ada Steenhoek, Members; Dr. Wilford Michael, President/Superintendent; Craig Georgianna, Student Member of the Board.

PLEASE FILL OUT AND RETURN THIS FORM IN THE ATTACHED ENVELOP BY APRIL 2, 1982.

TO: Cerritos College

FROM:

DATE:

SUBJECT: STUDENT PREDICTIONS

Listed below is a list of the articulated class/es I teach and the number of students I think will complete the class/es at the end of this semester with an A or B AND might possibly enroll at Cerritos College within the next two years and take coursework in that subject area. This is an unduplicated count:

Name of Class	Name of School	Equivalent Cerritos College Class	Number of A or B Students Expected to Enroll at Cerritos College within Next Two Years

SIGNED: _____
Instructor

AUG 20 1982

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